THE

NORTH AMERICAN

Medical and Surgical Journal.

OCTOBER, 1827.

ORIGINAL COMMUNICATIONS.

ARTICLE I.—*Observations on Delirium Tremens, or the Disease improperly called Mania a Potu, and produced by the Cessation of the habitual use of Alcohol and other Narcotic Substances; with an Attempt to set the Treatment of that Affection upon a stable Basis.* By B. H. COATES, M. D. &c.

[Concluded from page 52.]

OF THE TREATMENT.

THE treatment generally recommended in the United States, where this malady is unfortunately the most fully known, is a *combination* of several modes of practice; or, as it is frequently expressed, in a very vague manner, one "varying according to the state of the system in different cases." That this is, in the abstract, correct, is unquestionable; but when it comes to be applied to a change or fluctuation in treating those essential morbid changes which are considered as constituting a disease, and to be used to justify the practitioner's not having made up his mind as to a preference of one fundamental principle or method of treatment, over another, and to hide, perhaps from his own mind, a confusion existing among his ideas on the subject—when this is the case, we are compelled to disapprove of it. If there be any circumstance or thing, to which the name of a disease can be

attached, it must consist of certain deviations from health, of a specified nature, liable to be variously combined with other peculiarities, but retaining the same essential character. The task of the pathologist should be to define and describe this; and then the treatment peculiar to it may be ascertained from experience, preserving the necessary privilege of varying it according to the different combinations of circumstances under which it may occur. Thus, a delirium tremens may exist, complicated with a bilious fever, or with an inflammation of the lungs; and it is matter for consideration, how far these cotemporaneous affections may, and ought to, qualify or forbid the treatment; but notwithstanding this, the proper treatment for the delirium itself, if it can be permitted, is always of the same nature.

There is a peculiar state of peculiar organs, which we have endeavoured to describe in the preceding sheets, capable of destroying life by its own agency, and fully meriting the most minute study from the physician. To define this, and ascertain for it a successful mode of treatment, is a task, the utility of which is not diminished by the complications to which the disease is subject. Other circumstances may differ, but this is the radical and essential point; nor is it possible to understand and correctly treat compound cases, unless we previously form a clear apprehension of the simple ones.

Bred in the Pennsylvania hospital, my first experience was of the stimulo-narcotic treatment; and the gentlemen who administered it seemed to place nearly or quite as full reliance upon the stimulating, as the narcotic portion of their remedies. The latter were not pushed to such heights as they have since been. The disease, at this period, was frequently fatal; and I well remember being at one time shocked by the deaths, in succession, of three patients admitted with fractures. I observed, however, at this time, that those who recovered, invariably obtained, as the pledge of returning sanity and health, a long and quiet sleep, which those who died never experienced.

The resident pupils of the house, since then replaced by graduates in medicine, have at all times had a very important and responsible charge; and in no instance more strikingly so than in the case of the disease under consideration. Entrusted, regularly, with the superintendance of the patients during the long intervals

between the ordinary visits of the physician, (made twice a week,) and acquiring, during their residence of five years, a considerable amount of practical skill, they found much trust reposed in them even when the physician in attendance visited more frequently. A patient, belonging to the ——— theatre, was referred to my charge, during a delirium tremens of extreme violence. From a form at the commencement entirely intermittent, his delirium had become continued, increased greatly in violence, and resisted the action of very large doses of opium, carried, in one evening, beyond the amount of twenty grains, and accompanied by considerable quantities of alcoholic drinks. In this situation, his pulse rapidly declining, while the delirium was regularly increasing, and after the disease had continued upwards of a week, I judged, that, according to ordinary experience, the patient must certainly die, unless he obtained sleep. I gave him six grains of powdered opium every hour, visiting him, and carefully watching the effect of the sedative at every dose.* It was not till thirty-nine grains had been thus administered, that a decided tendency to sleep was observed. Rest, however, not being obtained, another dose was given, making forty-five grains; and full sleep was produced within another hour. Next morning, the patient awoke *perfectly rational.* Delirium returned, in a slighter degree, for several nights following; and minor doses of opium continued to be given for a long time after; longer than I now ever find necessary. But the patient's life was saved; and he recovered sufficient strength to struggle with a long and severe surgical disease, to regain his health, and return to his professional employments. He subsequently died of yellow fever, at New Orleans.

About the same time, another patient was recovered by the administration of 400 drops of laudanum in five hours; a larger dose than I had then seen given in the disease. The impression made upon my mind by these two cases was such, that I acted afterwards on the principle, that sleep must be obtained at all hazards; and this has produced a success, which, as time advances, has the more confirmed me in the belief of its propriety.

At this period, the case first mentioned above, was that in which

* It is not very material to remark, that one dose, from an apprehension of approaching sleep, was diminished to five grains, and the following one enhanced to seven grains. Three grains were given a short time previously.

the largest amount of opium had been given, in this disease, within my knowledge. Since then, Dr. Thos. T. Hewson informs me that he has administered, within twenty-four hours, as much as seventy-two grains; and Dr. Otto has also used it in very large doses; both of them with the most gratifying success. The effect of the treatment adopted at the Pennsylvania hospital, has been such as to satisfy the minds of the physicians, that no advantage was likely to ensue from changing it for the emetic, or any other practice. This treatment generally includes the administration of a more or less considerable amount of alcoholic stimulants; but mainly depends upon opium, and other tranquillizing remedies.

Of the success which this practice has obtained, in my own hands, I dare hardly speak. Wherever time has been allowed for the administration, by repeated doses, of a large amount of opium, this practice appears to me to have been *always* successful in curing the delirium. If, as has by no means frequently been the case, the patient subsequently died of an inflammation of some viscus, I did not consider this as at all impeaching the propriety or curative power of the treatment. One disease had been cured: another might still possess the power of destroying life. One thing, at any rate, I can assert with the utmost confidence; that I have never yet seen a patient die of this delirium, in whom a sound, continued sleep had been produced, and made to recur at the natural intervals, nor one patient recover, in whom this did not previously take place. For an indication as to practice, this is sufficient—sufficient to show that sleep is the *sine qua non* to a recovery.

A review of the comparative success claimed by different practitioners, will throw additional light upon the superiority of the narcotic treatment, so far as employed. Dr. Armstrong, at first, lost four out of sixteen, or twenty-five per cent.; but after he had adopted his improved practice, the mortality among his patients was diminished to three out of twenty-six, or 11½ per cent. very nearly.* Dr. Klapp's mortality was twenty-one per cent. or nearly the same with that at which Dr. Armstrong began.

Dr. Sutton lost four out of twenty-two of his patients, or eighteen per cent. Of these, he remarks that one died within six

* Typhus fever, &c. 2nd Am. Ed. p. 363.

hours of his first visit; and in two other cases, Dr. S. believed that life was prolonged by the use of the remedy.

Dr. PEARSON states, that, of ninety-three patients whom he attended for this complaint, in the vicinity of Newcastle, he recovered *the whole!* Mr. MAXWELL, of Newcastle, is also described by him to have cured forty cases; and the intention of the narrator seems to be to convey the impression, that he lost none. This is, however, not stated in distinct terms; and we are bound to exclude him from our more strict comparison. Dr. SNOWDEN has informed me personally, that he lost only three out of seventy-three. Mr. BLAKE, of St. Vincent, lost one in ten, after a stimulo-narcotic treatment, without bleeding, but including blisters, shaving of the head, &c.*

Of my own success, I cannot furnish an accurate statement, for want of written records.

The relative success, then, of these different practitioners, without making any allowance for the variety of circumstances which influence the ratio of mortality, but giving the whole in gross, will stand as follows.

	Recoveries.	*Deaths.*
Dr. PEARSON,	The whole.	None.
Dr. SNOWDEN,	96 per cent.	4 per cent.
Mr. BLAKE,	90	10
Dr. ARMSTRONG, improved treatment,	88½	11½
Dr. SUTTON,	82	18
Dr. KLAPP,	79	21
Dr. ARMSTRONG, first method,	75	25

Of these gentlemen, Drs. PEARSON and SNOWDEN regarded the production of sleep as absolutely necessary to the cure. Dr. ARMSTRONG states that he "fell into the error of administering opium indiscriminately in every stage and variety of this complaint," and is anxious that this supposed error (a happy one, we conceive, for his patients) should be corrected in his book, for the sake of others. At the same time, although he tells us that experience has taught him, that in robust subjects who are only occasionally intoxicated, opium "should hardly ever be exhibited, until the bowels have been freely and frequently evacuated;" he does not tell in what

* Ed. Med. and Surg. Journ. vol. 19, p. 497.

that experience consisted, but only states that he "*believes* that his success would have been greater, had he sooner known the necessity of this precaution;" adding, however, a little further down, that in these very cases, purgatives "are most pernicious in the advanced stage." These statements, as they stand, form a confession that it was the treatment with opium, calomel, and the warm salt bath, or affusions, which was submitted to the test in his practice; although, probably from analogy to other diseases, or from some theoretical views, he subsequently changed his mind respecting it.*

Dr. SUTTON's was, as we have said, the simple opium practice; but not, in general, pushed to very large doses, or with a determined intention to obtain sleep at all hazards. In 13 cases, where he details the amounts given which produced sleep, and a more or less permanent recovery, these were from 60 to 120 drops of tincture of opium, from 4 to 34 grains of the extract, and in one instance, 120 drops of the tincture, followed by several doses, each consisting of two grains of extract.. In several of Dr. S.'s cases, severe complications existed: thus, among sixteen narratives which he has given us, there were three of apoplexy and two of insanity; and he also mentions two of scarlatina, all occurring among the twenty-two on which he founded his essay. He sometimes used blood-letting. Dr. KLAPP's practice depended mainly upon emetics. The first mode of treatment adopted by Dr. ARMSTRONG, the most fatal of those whose results we have found on record, is not described; and we can only conjecture that it was probably the one most general among the British practitioners, previously to the publications by Drs. BURTON PEARSON, and SUTTON, viz. that proper for common febrile delirium, or simple phrenitis.

My ingenious friend, Mr. George Spackman, has attended, singly and in consultation, nine or ten of these cases, which recovered under the opium practice, and lost one in whom this was postponed till after the operation of a severe purge.

This investigation goes far to show that the general success was nearly in proportion to the extent to which opium was used. Of course, it must require modification and combination, according to the variety of cases; and Dr. ARMSTRONG's calomel unquestionably

* Vide Typhus fever, p. 367.

may, in some instances, have been appropriate and useful. Yet the greatest success of all, a success almost miraculous, is ascribed to the simple opiate practice, carried to its fullest extent, and uncombined with calomel, baths, or any considerable amount of alcoholic drinks, by Dr. BURTON PEARSON.

This extraordinary claim to universal success, in the treatment of a dangerous disease, is of such a character as to demand a particular consideration: it is such as might, in many minds, naturally awake a doubt of the author's adherence to the truth. Yet the evidence I have drawn from nature, combined with the respectability which Dr. ARMSTRONG and others evidently attribute to Dr. PEARSON's character, sufficiently convince me that an indulgent analysis of his little pamphlet, or rather handbill, never intended for general circulation, will yield us a view of the subject which will abundantly explain his statements, and obtain the fullest credence for them. Dr. PEARSON is describing a peculiar disease, for which he had been made acquainted with a successful remedy; and his space did not admit the treating of complications. He therefore confines himself to simple delirium tremens. I am strongly inclined to the opinion, that, in every case, this affection can be removed by the opiate treatment; although the patient will occasionally die of the complications. A man shall have the delirium, combined with gastritis, or acute hepatitis; and during, or after the cure of the former, he shall succumb to the abdominal affection. But it should be recollected that the same must be the case with the other practitioners cited above; and such a statement therefore, though in the abstract not incompatible with veracity, is incorrect, and misleading as a means of comparison with others. The only just mode of judging, is to state the whole number, including all accidental circumstances, which can be separately explained. The writer of these sheets is bound to say, that, with this qualification, he gives full and entire belief to the assertions of Dr. PEARSON; and is satisfied that it is in the power of opium, at the present day, to succeed in almost all cases, where the complications are not very severe, and that it may easily have cured in a large number successively, without a single failure.

In addition to the above evidence of the powers of opium, I am enabled to cite that of Dr. Neill; who has obligingly communicated

to me the narratives of eleven cases, taken, in the order of time, from a very large number, which have fallen under his care in the Pennsylvania state prison. From these, and from his enlarged experience, Dr. N. has come to the conclusion, that, in fair cases, opium is comparatively a certain cure for delirium tremens; "that opium is, in mania a potu, what bark is in intermittent fever." Such are his words, in the paper which he has permitted me to append to the present one.

But a doctrine more startling than the gastric theory, has been advanced: one which seems to go far to represent as idle all our disquisitions relative to the treatment of this disease. We have long heard, with, we confess, but little attention, an assertion which has circulated widely among the physicians of the city; but which we nevertheless prefer to quote from the Philadelphia Journal.* It is there stated, upon the authority of Dr. CHAPMAN, "that the late Dr. KUHN was known to declare, that after an extensive trial of different plans in our hospital, he found none to answer so well as confining the patient in a dark cell, to leave the disease spontaneously to work itself off!!" If this opinion of Dr. KUHN be correct, and if he tried the modern practices, much have they to answer for, who have furnished the heavier items of the table of mortality in a preceding page. It is charging them with directly *causing* a large number of deaths by their injudicious practice. We have but two ways of reconciling this allegation of Dr. K. with his well known character as a practitioner. One of these is to ascribe it to a certain habit of loose conversation in which many very eminent physicians have indulged, permitting them to undervalue their own art—a practice which is nevertheless expressly condemned by the writers on medical ethics, and which is really the commission of a sin. The other is the recollection that the opiate and stimulo-narcotic practices were then probably unknown, at least to Dr. KUHN; and the presumption is, that, like most of the European practitioners, he confounded the disease with phrenitis. To undertake the cure of delirium tremens by bleeding, cupping, and purging combined, might indeed have been far less successful than leaving them to themselves. Had Dr. KUHN retained the opinion here ascribed to him, after he had given a

* Vol. 3. p. 242, foot note.

trial to the narcotic practice, he would hardly have taught the latter in his lectures, and, in particular, recommended it to his pupil, Dr. WILLIAM CURRIE. That this was the fact, will appear from a note with which I have been favoured by my friend, Dr. CONDIE, who was a pupil of the latter physician, and whose communication is subjoined to this paper.

It appears unquestionable that a large proportion of cases in this, as in many other diseases, would recover by the unassisted efforts of nature. In no other manner can we explain the recovery of the great majority when subjected to such inconsistent modes of treatment as those we have enumerated. Again, it is well known in the port of Philadelphia, that it is common for sailors, on first leaving the scene of their frolics for a new voyage, to be affected with a degree of this disease, and to recover under the care of the captains of their ships. It is familiarly known to these by the appellation of "*the horrors;*" and it appears to be mostly treated with strong drinks, and occasionally without any: yet deaths are a rare occurrence. It should, however, be borne in mind, that men exhausted by the last stages of debauchery, are seldom likely to be selected, or to offer themselves for the service of shipping; our crews generally consisting of the intemperate indeed, but of the young and robust, who have still strength to contend with disease. Those sea captains with whom the author of these sheets has conversed upon this subject, have all made the report, that sleep invariably preceded the return of health.

In the place just referred to, will also be found the opinion of Dr. CHAPMAN on the use of opium. "Sleep is the *sine qua non* in the cure of this species of mania, and when [this is] effected, all difficulty is at an end."

Having thus endeavoured to show that the use of opium rests upon abundant evidence, in addition to our own testimony, we shall proceed to make a few observations on the principles of its administration. To produce any impression of whatever kind, during this disease, opium must be given in doses increased enormously beyond those which are requisite for ordinary purposes. Five or six grains alone, are, in a case of any severity, absolutely a nullity—they will not drive away a single spectre. The successful amount with me, has generally been from twelve, to twenty-eight, or thirty grains; but in an honest judgment, I can assign to

it no limit. I have never seen, read of, or heard of, an instance in which it was productive of any harm. Nevertheless, from this very fact, that there exists no experience of the effects produced by an over dose of the remedy in this disease, it is rendered the more necessary to use the utmost precaution to avoid them. Physicians have been so careful as never to venture upon them; they are a complete *terra incognita*, and we cannot judge how nearly we may approach the concealed rocks of destruction. The administration of such a remedy should be watched with the more assiduity, because we know not whether poisonous effects will be produced by an arithmetical, or a geometrical increase—whether five grains, or thirty grains in addition, are sufficient to endanger the patient's life.

The only rule by which I would be, and have always been guided, is the following. A certain effect is to be produced, *coute qui coute;* and we must go on exhibiting opium in considerable doses, at such short intervals as are sufficient to permit its accumulation in the primæ viæ, until enough has been taken to produce sleep. I have generally given it every hour; but when sleep appears actually approaching, a somewhat longer interval may be allowed, to ascertain the fact, without much hazard of defeating the plan of cure. If the case be a slight one, I have left doses amounting to five or six grains with the attendants, directing them to proceed with it, either until sleep was produced, or the medicine had all been taken. Upon the failure of one trial like this, a much larger amount must be employed; and where considerable doses are given at every time, it is indispensably necessary that the physician should superintend their effects himself, visiting the patient after every fresh administration, and watching for any disposition to drowsiness. Where this has not yet appeared, there is not the least danger to be apprehended; as we believe it may be safely denied that there is a case on record in which any injury was sustained.

When a sound sleep has been obtained, if of eight or ten hours' duration, the patient has, so far as the experience of a large amount of cases has gone, and as a reference to books has confirmed it, uniformly awakened with a sane mind. A change like this, and taking place, too, in eight or ten hours, is so desirable to the sufferer and his friends, that I know of no adequate grounds

for postponing it. No *periods* or *stages* of the disease should be at all considered in the case—the cause of distress is an undue excitement of the brain; and opium can, and therefore should, immediately be made to quiet it. Entertaining, therefore, these opinions, I have never waited to premise evacuants, but had immediate recourse to that invaluable gift of Providence, at the moment I was called. The disease being often intermittent, it is apt to return on the following evening. Where this is the case, and not otherwise, a dose of opium must be then given; its quantity rarely need exceed, even in very bad cases, four or five grains. A similar care should be exercised, for several nights. Nothing further, so far as I know, is absolutely necessary to the cure; but there are a few points of minor importance, to which the physician will not fail to attend: these are, opening the bowels, which the opium always renders costive; and the administration of some very gentle tonic or stimulant, to promote the recovery of strength. For the first of these objects, an ounce of salts, or in weak subjects, an injection, will be sufficient: the latter is very frequently entirely unnecessary, since so far is the disease from consisting in irritation of the stomach, that appetite and the rapid recovery of health, very generally, immediately follow the cessation of the delirium, and the omission of the remedies employed.

The best form for the administration of narcotics, is powdered opium. Laudanum is so familiar to the ordinary attendants of the sick, that they discover the great amount of the doses given; and the alarm arising from this cause is often extremely troublesome and may entirely defeat the cure. Laudanum may, however, be given in mixtures, merely for the purpose of leaving the physician uncontrolled by the fears of the friends of the patient.

Against pills of opium may perhaps be brought an objection frequently made by Dr. PARRISH, in his clinical lectures at the Pennsylvania hospital; viz. an uncertainty as to the length of time requisite for them to dissolve, and a consequent possibility of their accumulating to an unsafe amount within the primæ viæ, while the visible indication of their activity is only in proportion to that part of them which has actually become liquefied. I have never, however, been aware of ill effects from this cause.

We shall speak of other narcotics and antispasmodics. Of com-

binations of another description we conceive that Dr. SUTTON has expressed the real character, when he tells us, with much sincerity, that they are "more to be considered as given for the sake of form, than as depended upon to produce any material effect."*

We have been thus copious upon the subject of opium, from the sincere belief that it constitutes the whole substance of the treatment; that all other means are mere appendages to it, and might be dispensed with. Though, however, this was the main object of the present essay, justice can yet be done to those other remedies which are generally used or recommended.

Of Blood-letting.—"Blood *may* be drawn," says Dr. SUTTON, if the patient be plethoric; but it is "not absolutely necessary in any case of this disease, when the paroxysm is fully formed." He "*cannot say that its use has rendered the employment of opium less successful;*" and it "may be employed when strong evidence of plethora exists." Yet, he tells us, "when it has been used, and principally relied on, I have observed a fatal termination of the disease in almost every case; though the indication, as to habit, for its use, appeared strong and decisive."† Anceps remedium, indeed! but here there exists an alternative, and we are not forced to have recourse to this. Dr. BURTON PEARSON finds that it is twenty to one against a patient's recovery, if he is managed by the depleting treatment. Dr. ARMSTRONG tells us that he has "seen it (blood-letting) beneficial in the beginning of numerous cases; yet he is fully persuaded that there are not many instances where the lancet is really requisite."‡ Dr. POTTER, in his notes, states that, in what he calls "*febris temulenta*," he has employed bleedings of every amount, from one to forty ounces; and has frequently drawn 70, 80, or 100 ounces in the course of three or four days, with the happiest effects. We are sure that this eminent physician, whose worth we have the advantage of knowing personally, cannot design the same cases, under the use of this term, as those which are meant by the authors previously quoted, or by the writer of this memoir. He speaks of symptoms threatening apoplexy, and of a ferocious delirium, as characterizing the complaint

* P. 60.

† Tracts on Delirium Tremens, &c. pp. 66, 67.

‡ Typhus fever, &c. p. 364. These expressions, which sound rather contradictory, occur, the one immediately after the other, in the text.

he describes. The delirium tremens, as is remarked by SUTTON, is always good-natured. Dr. POTTER appears to us to have included inflammatory fever, and actual drunkenness, and perhaps a common phrenitis, within the too lax bounds of his epithet, *febris tumulenta;* and we the more regret this, as his notes, which immediately follow the essay of Dr. ARMSTRONG, in our ordinary edition, have been applied, far and wide, with all the sanction of his name, to the delirium tremens.*

Dr. BROWN coincides in the opinion of Dr. ARMSTRONG, which he recites. Like most of those of the latter writer, Dr. B.'s expressions are, with the above exceptions, all negative: he tells us in what cases he found that it should not be used, but never positively where it should be. He evidently shows a strong disinclination to it; but seems to feel that venesection was expected of the physician, and confines himself to preventing its too free employment.†

Dr. KLAPP, and most of the other writers quoted, say little or nothing respecting blood-letting.

With such evidence before us, we cannot refrain from the inquiry, why resort to such a dangerous or doubtful remedy? With the exception of Dr. POTTER, every one acknowledges it to be highly improper in the great majority of cases; some men of very large experience forbid it altogether, and no one is found willing to say that it actually does any good! Why not prohibit it at once? Are we under any obligation to employ blood-letting? And what useful purpose is it to answer, when it is employed? My own experience leads me distinctly to say, that it does not appear to have the least discoverable effect, positive or negative, upon the delirium; and that it actually does harm to the patient, by diminishing his strength, an item highly necessary to the cure.

An apprehension long prevailed at the Pennsylvania hospital, that the too free use of bleeding, in patients predisposed to this complaint, produced or increased it. To this we have alluded in another place. I have, as there stated, never met with any evidence going to prove this supposition correct; though the debilitated state of the circulation which exists in the majority of cases, has frequently forbid venesection. In such instances, I have

* Armstrong on Typhus, &c. 2nd Am. ed. p. 377.
† Am. Med. Recorder for 1822, p. 204.

generally acted, with regard to this remedy, very much as in ordinary states of disease, always taking into consideration that a considerable degree of debility was to be inferred from the patient's previous habits, and recollecting the necessity of ensuring sleep by opium, as a preventive.

Cups to the head have been employed in the Pennsylvania hospital, by Dr. PARRISH, in patients under my immediate attention; and with great advantage. *Blisters* have also appeared of still greater service, as they did not equally weaken the patient. The mere shaving of the head was productive of no perceptible benefit.

The only author I have consulted who speaks of the effects of blisters in a manner that seemed to indicate a particular attention to them as seen in practice, is Dr. SUTTON, and his opinion is directly contrary to that which I have just expressed. He "never saw a blister employed in the paroxysm that did not occasion great irritation, and augment it considerably." He employed them in consequence, during the remission; still without observing any beneficial result; and he confesses, with a manly candour, that this was done from form, and a desire, as far as possible, to imitate other practitioners. We conceive, not only that many of us have acted as Dr. SUTTON thus describes himself to have done, but that this mode of procedure is, to a certain extent, proper, as tending to prevent a physician from relying, with too much independence, upon his own experience, to the exclusion of that of others.

Of *emetics* we have had no experience. To use the argument of an eminent clinical teacher, the success was so good, that it has never been felt necessary, in the Pennsylvania hospital, to make trials of the emetic treatment. On their general employment, as a means of cure, we have already sufficiently commented. It would be an unreasonable scepticism to call in question, in the face of the reports of so many respectable physicians, their power to diminish, and occasionally to cure the disease.* I am disposed, with Dr. BROWN, to ascribe their usefulness to a direct effect on the nervous system. Certainly, they cannot produce the relief by curing a gastritis which has already nearly recovered of itself; and this, by removing no more irritating substance than a quantity

* Emetics are recommended by Dr. DARWIN for "*delirium ebrietatis.*" "M. M. Diluting liquids. An emetic." Zoonomia, v. 2.—II. 1. 7. 3.

of thick, glairy mucus. Many therapeutists would say that emetics must be positively injurious in such a case. On the other hand, all vomits produce languor, and ipecacuanha is known to cause somnolency; and there appears no obvious improbability in the supposition that it is by an agency of such a nature that sleep and a cure are effected. We cannot, however, undertake to deny that emetics may be beneficial through their agency on the circulatory functions, as we have already seen to be the case with cups and blisters. Perhaps, as several eclectic practitioners have remarked, emetics may be useful to prepare the stomach for the administration of opium. Certainly, if that viscus contain a large quantity of glairy matter, which an emetic will discharge, a more speedy operation may be expected from an opiate, if the vomit be premised; but whether this be on the whole advisable, is not exactly the same question. I apprehend that the emetic is not at all necessary; as a slight increase of the dose of opium will, without any subsequent disadvantage, produce the same effect; and that the emetic is a rough remedy, calculated to increase the irritation of an already deranged stomach, and is therefore positively objectionable.

I would recapitulate the objections to the systematic use of emetics, as follows.

1. Experience has shown, according to the statements of those who have used and recommended different modes of treatment, that this is decidedly the least successful in preserving life, with the exception of the treatment for phrenitis.

2. Emetics leave the patient more debilitated than any other treatment. His stomach is already deranged by debauchery; and while it is recovering, we subject it to the action of antimoniated tartar and ipecacuanha.

3. Deaths have been clearly produced by them. Dr. CHAPMAN informs us that two cases came under his notice, in which, emetics having been "exhibited where there was much prostration of power," the system would not re-act, and the patient irrecoverably sunk.* Several other cases had been reported to him; and he seems inclined to consider all very large doses of emetic tartar as poisonous. Cases have been mentioned to me, where

* Philadephia Journal, vol. i. p. 196.

the excessive purging which this remedy is liable to produce, when given in large amount, or in more moderate quantities, when retained by the stomach, was followed by dissolution. While this essay was in preparation, another case of death, following the use of emetic tartar and ipecacuanha, at a short interval, and with symptoms of irritation, has been obligingly communicated to me by Dr. BREWSTER, of this city. The reader will find the narrative at the end of this paper.

4. Finally, the whole philosophy and history of the disease point out narcotics as the remedy; and render it not improbable, that it is only by acting as narcotics, that vomits are capable, by themselves, of curing it.

Purgatives, employed by Drs. SUTTON, ARMSTRONG, POTTER, and BROWN, if given together with opium, seldom act till the narcotic effect of the latter has subsided. When the patient has had his critical sleep, and is out of all danger, they then operate. Little useful effect should certainly be anticipated from such a tardy remedy; unless it be the prevention of costiveness during the convalescence; and this object may be obtained with the utmost facility, by the use of mild laxatives, or enemata, after the sleep has terminated. These remarks extend to *calomel:* the additional risk of using which is not justified by any connection between this disease and the liver. Calomel has no influence whatever over this disease of the brain; and when a hepatitis, or violent abdominal inflammation really exists, it is seldom necessary to combine the treatment of the two diseases. Yet it may be so: and where this is the case, and to the original danger is superadded an urgent and severe inflammation, the probability of recovery is but small.

Camphor, *asafœtida*, *Hoffmann's anodyne*.—I have given all these substances, and watched their effects. I should characterize the first two as powerful agents in restoring the mind to its equilibrium. With the latter I was less successful; but this very probably was from not having discovered the necessary dose. The operation of camphor and HOFFMANN'S anodyne is easily explained: they are narcotics, and resemble opium. It seems more difficult to comprehend the effect of asafœtida; the ordinary exhilarating operation of which appears rather to resemble delirium tremens than to be contrary to it. Its power of producing sleep, however, is well known.

Camphor was used combined with opium in pills: asafœtida, in emulsion. The unnecessary complexity of these remedies, forms a solid objection to their use; and in the case of asafœtida, it is augmented by the difficulty of inducing the patient to take it. It cannot be pretended that any greater certainty in producing sleep is obtained by the addition of these substances to opium; and we can imagine no adequate reason for doing so, as the anodyne is, by this means, neither rendered more agreeable, nor corrected in any of its bad qualities.

Of morphia, and the other de-narcotised opiates, I have no experience; but I have seldom witnessed any very great suffering of the kind which these are intended to avoid, in the head and stomach. I do not doubt, however, that the comfort of the patient may frequently be much promoted by their use. Black drop has been highly recommended to me; but I have never tried it, from the want of an equal familiarity with its operation, in estimating the doses.

Decoction of hops.—Dr. PHYSICK has found this remedy extremely useful: he has particularly employed it where there was a necessity for using a very large amount of narcotics. It was used in a few cases in the Pennsylvania hospital, during my stay there; and was thought to have contributed very usefully to the production of sleep. Dr. JACKSON of Northumberland, Pennsylvania, writes me that he has placed much dependence on it, and considers it a very valuable resource.

Cold affusions.—This remedy, which resembles the ordinary practise of *pumping* on the heads of drunken persons, is highly praised by Dr. ARMSTRONG; and by Drs. RAMSAY and GREGSON, as quoted by him. I have no experience of it. Dr. JACKSON, of this city, has recently published a successful case of its employment. In the Edinburgh Medical and Surgical Journal, No. 52, Dr. WOOD of Newcastle, recommends the free application of *cold wet cloths* to the head.

Ardent spirits.—Should the present essay have the effect to induce any physicians to dispense with this article in their methodus medendi, it will be an occurrence amply worth the trouble of its preparation. Ardent spirits still form an important portion of the means employed by many practitioners who also make use of opium. It therefore becomes an object of great importance

to ascertain whether the use of such a destructive agent be really necessary. To cure a man of delirium from intoxication, and then discharge him from our public institutions with the intoxicating cup in his hand, is truly remarked by one of our medical reviewers, to be combining a benefit with an injury to humanity; and no one who has read Dr. EMLEN's eloquent paper in a late number of this Journal, can fail to be impressed with a desire to avoid, if possible, colouring the use of such a baneful enemy of mankind with the pretext that it had, at one time, been recommended by a physician. Now Dr. KLAPP's papers abundantly show that a great majority of patients can recover without these drinks; and Drs. PEARSON and SUTTON, who were so successful with the opium practice, never used them at all, unless incidentally. Dr. ARMSTRONG gave them in small quantities. "It will seldom be necessary to give much *wine* or spirits, even to the hardest drinkers."* I have recovered, I am confident, fifty cases, without allowing them any. This is certainly sufficient to disprove any *necessity* for its use.

That a large amount of distilled spirits will cure many cases of delirium tremens, I have no doubt;—it is generally the abstraction of this substance which has caused the disease. To produce the desirable effect, however, they must be allowed in sufficient quantities to occasion sleep; which is nearly the same thing as saying that we must make them dead-drunk. There is no doubt that many cases which occur in tippling shops, are thus cured by the patient himself, whose vis medicatrix then shows itself very strongly by a desire for the remedy. Such, however, will never unnecessarily be the practice of physicians; they know that opium will produce the same effect with less injury to health and morals.

I have often and carefully watched the effects of the more moderate doses of distilled liquors which it is common to administer to such patients; and have come distinctly to the conclusion that they possess no sensible influence at all. They neither diminish the violence of the patient's delirium, nor in the slightest degree increase his strength. It is well known that in progressive fatigue, these substances exhaust the strength sooner than it would

* P. 366. There is no trifling difference, indeed, between a small quantity of wine, and a pint or a quart of whiskey per diem, as is sometimes allowed.

otherwise fail; and such has appeared to me to be the case in delirium tremens. The only tonic which can be of any service during the attack, is *rest*. Now we can produce this desired effect with far more certainty and at a far less expense to the system by opium than by ardent spirits; and I can imagine no possible reason for combining it with a worse article. Could a practitioner be influenced by a desire to appear more complex and scientific in the treatment, this effect would be produced with far less violence to good principles, by the use of innocent disguises.

Ammonia has been given, I cannot tell with what object. There is a remaining gastritis; and the patient requires not excitement, but calming remedies and quiet. I have never seen it productive of any service, nor, it must be confessed, of much injury.

In the convalescence, however, after sleep has been procured, and the delirium has ceased, or only returns in a milder degree, at night, to be checked with smaller doses of opium, some gentle stimulant is frequently useful, to accelerate digestion, and the recovery of strength. Appetite in general immediately returns, and the restoration to an ordinary condition is not slow; but the stomach seems to be in a weakened state, and is troubled with dyspeptic symptoms, which are greatly relieved by a mild stimulation. For this purpose, the best adapted one with which I am acquainted, is powdered capsicum, given in pills. It achieves the object in view in the most complete manner; and has this additional advantage, that it does not resemble the fatal poisons to which the patient is addicted.

The *prevention of the disease* is as simple as possible. It consists in nothing but the maintainance of sound sleep. If the patient's nervous system be in a natural state, when sufficiently fatigued he will sleep. If he cannot, his brain is unduly excited; and if this be produced by the abstraction of strong liquors or opium, the latter sedative will remove that excitement, and sleep is the only test of the reduction having been sufficient. This simplification of the *prophylaxis* will be found extremely useful in many cases. Where mania a potu, as it is called, is anticipated, from the patient's habits, and he is at the time labouring under an inflammatory disease, or a fracture of a large bone, there is not the least necessity for exasperating the one, or inflaming the other, by giving alcoholic drinks. Opium is altogether sufficient;

and we have thus a remedy, which, as physicians know, can be with safety given in almost any inflammatory complaint.

Of *delirium tremens occurring in patients affected with fracture.* This is one of the most troublesome, and, unless very successfully managed, dangerous complications in which this disease can exist. Its frequency has been found so great at the Pennsylvania hospital, that the idea has been entertained by many, that fractures were an exciting cause of the delirium; and its mortality has, at times, been very great. I know of no one who has treated of it in print. My brother, Dr. Reynell Coates, gave a copious account of it in a course of private lectures on Surgery.

The principal peculiarity of the indications furnished by this combination, is a greatly increased necessity of prevention, or of a speedy cure. The terrific consequences of a wild delirium, in a patient suffering from a broken leg or thigh, may be easily imagined. He frequently escapes from his bed, and endeavours to walk, seeming altogether insensible of pain in a limb which is frequently bent nearly at right angles, and incessantly agitated, at the place of fracture. Inflammation and mortification might well be feared in such a state of things; but within my observations, where the patient has not recovered, he has sunk exhausted, before the local symptoms had reached any very great height. It would seem, indeed, as if the sensibility of the part to such injury were diminished.

One of the leading precautions necessary, is fore-thought, and the anticipation of the evil; ensuring sleep by the judicious administration of opium, where the previous habits of the patient give ground for fears of its occurrence. The sufferer from fracture, if of such a class in life, or under such circumstances as might produce an uncertainty in this respect, should be interrogated; or corresponding questions should be asked of his friends. My own experience would lead me to believe that the fear of shame will very generally prevent an acknowledgment, by the patient, of the whole amount of the liquor to which he is accustomed; and that it is safest to presume that the latter greatly exceeds his representations. When delirium actually exists, in patients affected with fractures, the greatest promptitude is required in ensuring sleep, as delay exposes the fractured limb to a greatly augmented injury. To confine the patient, in this situation,

is an extremely difficult task, almost beyond the power of the mere exertions of assistants; so incessant and unexhausted are the efforts of the unfortunate patient to escape. After completely tiring those who are endeavouring to confine him, he is just as well prepared for a sudden and unexpected struggle as at first; and it generally happens, that he actually obtains his liberty in repeated instances, to be again returned to his bed. One circumstance may be mentioned, which rather borders on the ludicrous, but which is really of frequent occurrence: he is sometimes apt to spit in the face of the attendant, while gravely looking at him.

Various mechanical contrivances have been made use of, for the purpose of confining such individuals in bed; particularly when labouring under fractures of the lower extremities. Of these the best, unless forbid by extreme heat of the weather, is the "bed-jacket;" an apparatus resembling a strait-jacket, but made to fasten to the bed-stead. When the use of this is thought intolerable from the heat, recourse may be had to straps. I have used an apparatus which is fastened to a main strap, running down the middle of the bed; but it allows too much motion for a fracture; and as the interval of time required for enforcing sleep is not very long, I have generally obtained the best success from the jacket, even in the hottest weather.

It is remarkable, notwithstanding what we have just said, that the injury sustained by fractures, from the incessant agitation in them produced by this peculiar delirium, is far less than might be anticipated: there is certainly less susceptibility of irritation in them; and I have sometimes thought that this was owing to the debility of the circulation produced by the exhaustion arising from the disease.

Having thus completed a survey of delirium tremens, we may conclude by a recapitulation, after the example of many excellent writers, of the leading points which we have endeavoured to establish, in the form of aphorisms.

1. The disease is a delirium, and not a mania; and this distinction should be attended to, both for medical and legal reasons.

2. It consists in a heightened activity of the sensorium; and this appears to arise from the generation, in that organ, of an unusual vital power, which is not, as in common, exhausted by the narcotic

poisons habitually used. This is not considered as an hypothesis, but the expression of a fact existing in nature.

3. The delirium may be combined with other diseases and injuries, situated in many different parts of the body.

4. When violent, it obscures and renders imperceptible most of the symptoms of the co-existing disease.

5. It is doubtless necessarily accompanied, as all vital excitements are, with an unusual amount of the circulation of the blood in the organ affected; and is, from this cause, sensibly influenced by cups, blisters and emetics. It is not so far checked by the use of emetics as to render these advisable as a leading means of cure. It is not sufficiently under the control of the general circulation to be cured by venesection, or to be sensibly relieved by it without such an exhaustion as is highly dangerous to life.

6. It is entirely and absolutely under the control of opium; although the fevers and other diseases which are liable to accompany it may be by no means so.

7. It admits of very large doses of opium, which are not productive, either at the time or subsequently, of any injurious consequences, provided they are not repeated after a tendency to sleep is evinced.

8. The patient must *sleep or die.* There is no alternative. Yet the physician should personally watch the effect of very large doses of opium.

9. There is no distinction of stages which need occasion a moment's delay in resorting to opium.

10. Purgatives are of no use in this delirium; but it is necessary to prevent costiveness subsequently to the administration of opium. Purgatives may be necessary for diseases which exist at the same time; but when this is the case, they are, in general, most advantageously postponed till after sleep has been obtained.

11. Gentle stimulants are frequently useful during the convalescence; but these should not resemble ardent spirits; and an excellent and sufficient one is capsicum. Nor should any ardent spirits, unless indicated by peculiar circumstances, be given during the paroxysm.

Cases of Mania a Potu, treated in the Pennsylvania State Prison, in 1819; in which a comparison is made between the Emetic Treatment and that by Stimulants and Anodynes. By HENRY NEILL, M. D.

1. Michael Leidy, about forty years of age, was committed to prison on the 30th of April. Was much intoxicated, and had been so almost constantly for the last six months. The next day had a convulsion fit. The keepers then gave him a gill of spirits. He that day discovered some symptoms of mania, and in the night became entirely deranged.

May 4th, came under my care,—had the usual symptoms of mania a potu, with a feeble pulse. Directed powders each containing a scruple of ipecacuanha and two grains of tartar emetic, with directions to give one every two hours until they operated freely; which they did after a few doses.

5th. Found he had not slept any. Repeated the emetic.

6th. Considerably worse,—had raved violently during the night. The emetic had operated freely. I now concluded to change the remedy; and directed the camphorated julep, to take a tablespoonful every hour, and four grains of opium every two hours; with a pint of spirits, to be drunk as soon as he could conveniently. In about four hours after the administration of these remedies, he went to sleep. Continued asleep for two hours; then awoke somewhat composed; was more tractable and took some nourishment.

At 3 o'clock the next morning he died; having, however, continued in his senses during the interval.

2. William Gibson, aged thirty-five years, was committed, on the 16th of August, 1819, as a vagrant. On the 18th he came under my care with the usual symptoms of mania a potu. His pulse was nearly natural, and he was not greatly debilitated. I directed an emetic, in the formula which was used in the preceding case. It operated freely in the course of the day. Continued sleepless and delirious during the night.

19th. This morning about 9 o'clock, he fell asleep and awoke much better; directed cold snake root tea, and nourishment.

20th. Found him quite well.

3. Maria Evans, was committed as a vagrant on the 21st of Aug.

1819. On the 24th, she came under my care with the usual symptoms of mania a potu, with a low and feeble pulse. Directed an emetic. It operated very well. The nurse observed that she had vomited a quart of bile.

25th. Had raved violently all night; she appeared just the same this morning. Directed the following: R. gum. camph. ʒij. pulv. gum. opii. ℈i. sp. lav. comp. ʒss. mucilag. gum. arab. ʒiv. m. F. mist. Take a table spoonful every two hours.

26th. Found her asleep—the nurse informed me that, after taking four doses, she went to sleep.

27th. Was quite relieved, and discharged from prison.

4. Michael Calahan, aged sixty years, came under my care in the prison with mania a potu, October 18th, 1819. His strength was tolerably good. He took an emetic; after the operation of which, he went to sleep and awoke quite well; and was discharged from prison in a few days.

5. Dec. 24th, 1819. Michael Calahan was again committed to prison and came under my care with mania a potu;—the symptoms about the same as they were in October. He took an emetic; which operated freely, but afforded no relief.

25th. Directed the camphorated mixture. He obtained sleep and became more composed. The mania did not return, but he died on the 27th, apparently of debility.

6. John Torr, aged forty-five years, was admitted on the 23rd of Feb. 1820, with mania a potu. Directed an emetic. It operated smartly as a cathartic.

24th. Had slept, and was so much relieved that I directed cold snake root tea only, with nourishment.

25th. Symptoms of mania returned; and the following prescription was directed. R. gum. camph. ʒij. g. opii. ℈i. mucilag. ʒiv. m. To take a table spoonful every two hours, until sleep was obtained. Besides this, one pint of spirits to be taken in the twenty-four hours.

26th. He had slept some, and though better, was not well. Continued the treatment; the opium to be administered every night until sleep was obtained, and a pint of spirits allowed.

27th. Still improving—three or four doses of the medicine always procured sleep. Continued prescription and spirits.

March 1st. Had recovered his reason, and was discharged, without making any alteration in the treatment.

7. Frederick Getts, aged forty years, was admitted March 31st, 1820. He had very great tremor of the whole system, but was not much debilitated; complained of pain in his back—senses at this time perfect, though I was apprehensive of mania, as he had been a hard drinker. Directed tr. guaiac. vol. ℥iij. elix. pareg. ℥i. m. To take a table spoonful three times a day.

April 1st. The usual symptoms of mania a potu had taken place. Directed two grains of gum opii every two hours.

2nd. No better—continue the opium.

3rd. Had vomited considerably, and was asleep. Opium omitted.

4th. Appeared quite rational, having slept considerably. Directed sulph. sodæ ℥i. to remove costiveness.

5th. Mania had returned; directed an emetic:—it operated freely.

6th. No better: mania more violent. Directed camphorated mixture as in the above case, with one pint of spirits per day.

7th. About 9 o'clock, A. M., had just got to sleep as I arrived.

8th. Had slept well during the night, and appeared perfectly recovered.

9th and 10th. Continued well and was discharged.

8. Robert Blight, aged thirty-six years, was admitted into the hospital, on the 21st of Sept. 1820, with mania a potu, exhibiting the usual symptoms. Directed two grains of opium every two hours, and a pint of spirits per day. In twenty-four hours he went to sleep, awoke rational, and continued well.

9. James Graham, aged thirty-eight, was admitted, on the 13th of Feb. 1821, with mania a potu. Two grains of opium were directed to be given every two hours, till sleep was procured; and a pint of spirits to be allowed per day. He was much better the next day. Treatment continued; the opium to be given at night. In three or four days, well and discharged.

10. John Smith, aged thirty-five, was admitted, on the —— of July, 1821, with mania a potu. Directed two grains of opium every two hours; and a pint of spirits to be given in the twenty-four hours. In about twenty-four hours after the treatment was commenced, he got to sleep. Continued this treatment as in the last case, for three or four days; in which time he perfectly recovered.

11. John Haines, aged twenty-nine years, was committed as a vagrant, had been a hard drinker. Came under my care, on the

17th of May, 1823, with remittent fever, attended with ordinary symptoms. An emetic was directed on the day of admission in the sick-room.

19th. Directed a solution of nitrate of potash and antimony.

20th. Medicine continued.

21st. There being an intermission of fever, bark was directed.

22nd. Found him quite delirious, with the characteristic symptoms of mania a potu, though free from fever. Directed the camphorated mixture, and one bottle of porter per day.

23rd. He was sleeping, and had come to his senses. Continued treatment.

24th. Omitted medicine. Continued porter.

25th. Discharged well.

I have inferred from the foregoing cases;

1st. That emetics alone will not generally cure mania a potu.

2nd. That they are very serviceable in preparing the stomach for the use of opium; and the occasional use of them is an improvement in practice.

3rd. That an emetic will sometimes cure the disease without any other remedy.

And 4th. I am of opinion that opium is in mania a potu, what bark is in intermittent fevers.

Case of Delirium Tremens, exemplifying its power of obscuring the symptoms of an inflammatory disease, and exhibiting violence with only two days' duration.

A tailor, Irish by birth, aged about twenty-five years, of a thin habit, and somewhat debilitated, owing, as it afterwards appeared, to habits of continued intemperance, applied to me, Feb. 5, 1826, towards the termination of the severe epidemic, which affected Philadelphia, at the commencement of that year, under the name of Influenza.

I found him labouring under symptoms of a smart pleurisy of both sides, complicated with distinct characters of bronchitis, and with that class of appearances which are referred by the modern school to gastro-enteritis. This combination, which might probably have been included under the terms bilious pleurisy, catarrhal fever, or pleuritic fever, I met with bleeding, purging, blisters,

and pectoral demulcents, aided by small portions of tincture of opium, and antimoniated wine. To these the malady rapidly yielded; and there was nothing peculiar in this stage of the case, but a very sudden shifting of the majority of pain from the right side to the left; in such a manner, that the patient applied to the latter a blister which I had directed to be procured for the original seat of the distress.

On the night between the 6th and 7th, as well as previously, his sleep was interrupted; but on that of the 7th and 8th, he was affected with distinct delirium, and was troubled with apparitions; his hands too manifesting tremor. I had previously inquired with care relative to his ordinary habits; but I now learned that his wife had concealed the truth from me, and that he had long indulged in excessive potations. Finding a delirium tremens distinctly formed, I directed the following mixture. R. Tinct. opii. acetos. ʒi. liq. Hoffmanni anodyn. ℥ss. aq. fluv. q. s. facere, ℥iv. tr. lavend. comp. ʒi m. sig. To take a table spoonful every hour, till he sleeps.

Learning, on the morning of the 9th, that he had had no sleep, and that his delirium progressively increased, I considered the latter as the most serious of his maladies, and as one threatening death, at no very remote period, unless prevented by a speedy cure. It was also viewed in the light of a circumstance postponing, by the embarrassment and anxiety it produced, the treatment necessary for his pulmonary complaints. Under these views, and as the anodyne mixture, of which he had taken nearly all, had failed in producing sleep, I directed a scruple of powdered opium to be made up in four doses, and one administered every hour. When the whole of this was consumed, no sleep appearing, and having visited with sufficient frequency and ascertained that there existed no visible symptoms referrible to the opium, I had another scruple divided into two doses, both of which he took, at the interval of an hour, a period merely sufficient to ascertain the fact, that the preceding dose was insufficient. For the administration of this I was rewarded with the pleasure of finding him perfectly rational the next morning, he having slept for eight or nine hours. He had thus taken forty grains of opium, within little more than five hours; besides nearly a drachm of black drop, and half an ounce of Hoffmann's anodyne, administered during the previous day and night.

On the 10th, he took a cathartic, his bowels having been constipated; and, with the addition, for one or two nights, of a moderate opiate, resumed the treatment addressed to his pulmonary complaint; the distinctly formed delirium having only existed during two days.

The most remarkable feature of this case yet remains to be recorded. From the first accounts given to me of his delirium, on the morning of the 8th, the pain in his side, and soreness of the bronchial region, appeared to have entirely ceased; and his cough was greatly moderated. This continued for one or two days after the delirium had terminated; and I could not help somewhat indulging the hope, that his disease, which had been but partly controlled by remedies, was now near its close: at the end of the period, however, which I have indicated, every character of the original maladies returned; they long resisted an energetic treatment, and gradually declined till near the end of March, when the unwillingness of the patient to submit to medical restraint, induced me to leave him. He was, at this time, still affected with a chronic pain in his side, accompanied by cough; and was by no means strong, and fit to be discharged. I have lately learned that he was still intemperate, and in a bad state of health.

Case of Delirium Tremens, exhibiting a duration of thirteen days, and a gradual decline. From the practice of Dr. Otto.

E. R., aged about forty years, was admitted into the Pennsylvania hospital, January 18th, 1827. Had not slept for seven nights. His symptoms were such, as, in the mind of the physician in attendance, distinctly characterized delirium tremens or mania a potu; and they occurred, in the usual manner, after the interruption of a course of drinking.

Night of the 18th. Seemed remarkably still, and manifested no symptoms of any violence. (This was subsequently discovered to have been owing to a strong impression on his mind that he was to be put to death.) Ordered tinct. opii gtt. L.

19th. No visible change. Had not slept, but seemed well. An anodyne, the quantity not recorded, was given at night.

20th. R. carb. ammon. ʒi. gum asaf. ʒij. tinct. opii ʒiij. aq. fluv. ℥vj. m. ft. mist. capt. ℥ss. quaque 3tia hora.

Evening. More restless. Capt. mist. quaque hora. Sumat opii gr. vi. hora somni, in pil.

21st. Had slept very little. Still very delirious. Contin. medicament. quaque hora.

Night. A little quieter. Capt. opii gr. iv. hora somni.

22nd. Had had some sleep. Capt. medic. quaque 2nda hora.

Night. Capt. opii gr. iv. hora somni.

23rd. Had some sleep. Had had visions during the night, but they were now gone. Tranquil. Contin. med. quaque 3tia hora.

Night. Capt. opii gr. iv. hora nona, et gr. iv. hora prima matutina.

24th. Had slept well, and was comfortable. Capt. mist. quaque 3tia hora. Capt. sulph. magnes. ℥i. Omittatur opium hora somni.

25th. Salts had operated twice in the night. Apparently well. Had no visions; and slept when not disturbed by the salts.

He then continued well, and rapidly regained strength.

In this narrative many visits are omitted; and the state of the bowels, during the early part of the disease, is not recorded: they were confined during the last day or two. The writer is well aware of the incomplete character of this statement, but only adduces the case as an example of the nature, and duration of its progress.

Case of Delirium Tremens and Acute Abdominal Inflammation. Death attributed to the latter.

D———, a printer, aged about twenty-nine years, American born, had been for several years in habits of intemperance. I had attended him in November, 1824, through an attack of delirium tremens of the most distinct character; and he recovered rapidly, in the usual way, after a sleep forced by free doses of opium. He had long made complaints which I referred to a chronic hepatitis; and he presented a sallow and emaciated appearance.

When called to him, March 25th, 1827, I found him complaining of a violent fixed pain, below the right edge of the liver; accompanied with some febrile symptoms and a foul tongue, but with much weakness. This I considered a local enteritis; and it was treated with bleeding, cupping, blistering, and calomel. On the 26th, his symptoms were milder; but it was reported that he

had been delirious during the night, and at different times during the day, that affection returned. He saw black dogs, cats, and rats, coming through a hole in the wall, which had no real existence; as well as numerous human visiters. He did not seem at all alarmed at these preternatural exhibitions, but described them and pointed to them with the greatest composure.

He was now treated with opium; the other practice being laid aside. The quantity of opium I have not recorded, but it was more moderate than the last, and, I presume, did not exceed 16 or 20 grains.

The same state of things continued during the night, and till the afternoon of the following day; when he fell asleep. He did not, however, sleep more than about three hours, before he ceased to exist.

During the whole of this latter stage, until sleep began, he continued to complain of his side, though less than on the previous day; and his delirium gradually and progressively increased. His pulse regularly subsided; but did not, however, disappear, till he was in articulo mortis.

I much regret that my notes of this interesting case are very imperfect: and as the facts are strong in my memory, I have ventured upon stating them, as they are valuable, and I have no better records of the kind. I have also to lament that I was prevented from examining the corpse.

Case of Mania a Potu. By W. C. Brewster, M. D.

Margaret Brown, thirty-seven years of age, and possessing a tolerably vigorous constitution, had been intemperate for six or eight months, and for the last five or six weeks, had been in the habit of taking from a pint to a pint and a half of whiskey daily. Having received a severe incision on her hand, she was obliged to abstain from her accustomed potations. On Saturday the 21st of April, I observed that peculiar tremulousness of the limbs which is almost a certain precursor of mania a potu. On Sunday morning the 22d, she was attacked with convulsions. When I arrived at 11 o'clock A. M., seeing at once the state of things, I determined upon trying the effects of the emetic practice. Eight grains of tartar emetic were accordingly dissolved in three table

spoonfuls of water, of which two tea spoonfuls were given immediately, and one directed to be given every ten minutes thereafter. This was continued until the whole quantity was taken, which not producing the effect desired, a second portion was dissolved and administered in the same way, though at rather shorter intervals. By the time the last dose was taken, slight emesis was produced, with a cessation of the epileptic paroxysms. Ipecacuanha was now ordered to the amount of ℈i. in conjunction with grs. ij. of tartar emetic, the effect of which was two more vomitings. The whole quantity discharged did not exceed a pint and a half of dark, glairy matter. At 4 o'clock P. M., diarrhœa took place, with violent spasms of the stomach and bowels, producing contortions, writhing, cold extremities, imperceptible pulse, &c. and the patient died at 8 o'clock, in extreme pain, notwithstanding the administration of two tea spoonfuls of laudanum.

Letter from Dr. D. F. Condie, *to the writer of the preceding Essay, on* Dr. Kuhn's *practice in Delirium Tremens.*

My Dear Sir,—I have mentioned to you in conversation, that the opium practice in delirium tremens was originally introduced into this city, by the late Dr. Adam Kuhn. This fact I learned many years since from Dr. Currie. It is certain that the administration of "solid opium at short intervals, until the patient sleep," is strongly insisted upon, as the only effectual treatment of the mania of drunkards, in a set of MS. notes, purporting to be "select notes from lectures on the M. M. by Dr. Adam Kuhn," in the hand writing, and formerly in the possession of Dr. William Currie, of this city. The latter gentleman has repeatedly stated to me, that this practice, which he was taught by Dr. K., was invariably pursued by him from his first entrance upon regular practice in 1783, and was seldom ineffectual in putting an end very speedily to the disease. He did not, however, confine himself entirely to opium. He in general commenced by a bleeding from the arm, or cups to the head, the application of cold to the scalp, sinapisms to the nape of the neck and extremities, and the exhibition of opium, generally in grain doses, every half hour or hour, until sleep was induced. On awaking, the patient was directed to drink, daily, for several weeks, or even months, of strong ginger tea, or sound

wine or porter sangree; abstaining entirely from every species of distilled spirits. I have had an opportunity of seeing a good deal of the doctor's practice in the disease under consideration, and have generally found, that by it a profound sleep was induced within the first twenty-four hours; from which the patient awoke, perfectly free from delirium. How far the venesection, cold applications, and sinapisms, may have concurred with the opium in producing so speedy a termination of the morbid symptoms, I am not prepared positively to determine: but I believe that in many cases, cups to the head, cold to the scalp, and stimulating applications upon the extremities, and especially the two first, will be found very valuable adjuvants in the treatment of many cases of this species of delirium. The drinks administered by Dr. C. subsequently to the removal of the disease, were, I suspect, rather with the view to wean the patient, if possible, from his habits of intemperance, than as remedial agents.

In the cases of delirium tremens which have occurred in my own practice, very many commenced with a kind of fit, nearly resembling that of epilepsy—in all, the tongue was moist, and coated with a white or yellowish slime; the bowels were in general costive. My mode of treating the disease has always been by the administration of opium: occasionally I have employed cups and blisters to the scalp, &c. In some instances, I have been obliged to carry the dose of opium to a great extent. In consultation with one of our most respectable practitioners, a case occurred to me (February, 1826) in which ten grains of opium were administered every two hours, until 120 grains were taken; sleep, however, not ensuing, nor indeed any very striking effects, the opium was now suspended, and two grains of ipecacuanha were given every half hour. This produced very considerable nausea, under the effects of which the patient was kept for about six hours; when two grains of opium being administered, a sound sleep almost immediately followed. When the patient awoke, he was perfectly free from the delirium and incessant agitation under which he had been labouring for near two weeks previously, and rapidly recovered his usual degree of health.

Yours, very sincerely, D. Francis Condie.

July 2, 1827.

ARTICLE II.—*Remarks on Phlegmasia Dolens.* By R. M. HUSTON, M. D.

THE disease which constitutes the subject of the following remarks, has generally been denominated *Phlegmasia Dolens.*

Numerous other appellations have, however, been assigned to it by various writers on the subject, grounded either on the supposed nature of the complaint, the causes by which it is produced, or the parts principally affected.

Its various names, therefore, give some idea of the variety of opinions which have been entertained with respect to its character; and for this reason I here present its synonymes.

Ischias a Sparganosis. SAUVAGES.
Depôt Laiteux. PUZOS.
Lait Repandu.
Ecchymoma Lymphatica. MOTHERBY and PARR.
Phlegmasia Lactea.
Œdema Lactium.
Phlegmasia Alba Dolens Puerperarum. WHITE
Anasarca Serosa. CULLEN.
Bucnemia Sparganosis, or
Sparganosis Puerperarum. GOOD.
Cruritis. HOSACK.

But without stopping to inquire into the propriety of these different synonymes, or the greater perspicuity of either of them, I shall pass at once to the more important consideration of the disease itself; intending to confine my remarks principally to it as observed in females, during the puerperal state.

This singular complaint ordinarily commences from the 10th to the 15th day after delivery; rarely before the completion of the first week, and not less seldom after the conclusion of the fourth.

"It attacks women of all ranks and of all habits; the healthy and the diseased; the lean and the corpulent; the sedentary and the active; the young and the middle aged." "It also occurs at all seasons and in all situations; and Dr. GOOD says it has never been known to appear in any other part of the body than the lower extremities." page 318. vol. ii. In this he is probably mistaken,

as a few cases of its occurrence in the arms are related by highly respectable authors; but the instances are extremely rare. "In about twelve or fourteen days after delivery, the patient complains of pain in the groin of one side, accompanied with the general train of pyrectic symptoms. The part affected soon becomes swelled and distended, the swelling extending to the labium pudendi of the same side, and down the inside of the thigh, to the leg and foot; in a day or two the limb is double its natural size, is hot, exquisitely tender, and moved with great difficulty." "It has not, however, the ordinary external signs of inflammation, but is *hard, smooth, glabrous, pale and equable, except where the conglobate glands are situate, which are corded and knotty, as in the groin, the ham, and the back and fleshy parts of the leg.*"* In almost every instance, more or less tenderness is experienced in the iliac region of the affected side, and especially in the course of the round ligament. Indeed, Mr. TRYE regards this symptom as pathognomonic.

Dr. GOOD declares it to be unconnected with any derangement of either the secretions of milk, or the uterine discharge. But this, although occasionally true, is far too comprehensive an expression. In all the cases that I have seen, the secretion of milk was diminished, and in some wholly suspended, during the violence of the disease; and the late Dr. BARD has informed us that the lochial discharge is *always* vitiated, which accords with what I have observed, although not conformable to the experience of others.

From the beginning, as already remarked, it is attended with the whole train of pyrectic symptoms; and this fever is often of the *hectic* character. Its duration is commonly about a fortnight or three weeks; but sometimes it continues for double that period, and is then productive of great emaciation.

The first signs of improvement are a diminution of pain and swelling in the inguinal glands, and those within POUPART's ligament, with a return of lactation, and an alteration of the lochial discharge, when these secretions have been affected. After this, the swelling and tenderness of the whole limb gradually subside, leaving a weakness behind, of various or indefinite continuance. It is not unusual, at this stage, for the other leg to become affected, but seldom to so great a degree as the first.

* Good, page 318.

Happily for parturient women, this singular and very painful affection is of rare occurrence: and to this circumstance is probably to be attributed the obscurity in which its pathology is still enveloped. Many respectable physicians who are extensively engaged in practice, have never seen a case of it; and there are few who have beheld it under a sufficient variety of circumstances to enable them to speak positively of either its causes, seat, or treatment.*

Although there is every reason to presume that cases have occasionally happened from the earliest periods of society, yet, according to Dr. HULL, no distinct account of it is to be found in the writings of HIPPOCRATES, or of any of the ancient fathers in medicine, anterior to the time of RODERIC Ā CASTRO. This is attributable partly to its analogy to rheumatism, with which it was probably confounded, and perhaps still more to the circumstance of accouchements, with the care of puerperal women generally, being confided to ignorant old women, who were alike incapable of making nice distinctions, or of recording accurately what they saw.

Since that period, several professed treatises upon it have been given to the world, and a great number of ephemeral communications, in the form of cases, through the different medical periodicals:—And, as few writers incline simply "*to communicate what they have tried*, and leave the rest to others for farther inquiry," we are consequently furnished with several theories on the subject; some of which we will now briefly examine.

By the older writers who have particularly noticed this complaint, as Ā CASTRO, WISEMAN, MESNARD, and others, it was regarded as a morbid swelling of the affected limb, "from a suppression or diminution of the uterine or lochial discharge," or "a reflux of the lochia upon the part."

This position was evidently assumed upon a very limited acquaintance with the malady, as well attested cases are now on record in which it has happened in pregnant females, and also in men, in whom there could be neither "suppression, diminution, nor any other derangement of uterine action."

The next theory on the subject is derived from the French

* Of 1897 women who were delivered at the Westminster General Dispensary, five only were attacked by it; and of 8000 cases at Manchester Lying-in Hospital, only four had phlegmasia dolens.

school; attributed by some to Puzos, and by others claimed for Levret, and is grounded on the supposition that the disease depended upon the actual presence of milk, deposited in the substance of the limb, and hence was denominated *depôt de lait.*

Dr. Mason Good traces this notion to Dioscorides. Without venturing either to deny or affirm his accuracy in this, we may safely say, that it was not fully and generally proclaimed until the year 1758 or 9, and then by the celebrated French authors just cited; by whom it was carried so far as to attribute nearly every swelling of the abdomen, arms, legs, &c. which occur at a particular period, to a "depôt de lait," in the cellular membrane of the affected limb, or between the layers of the peritoneum.

In addition to the authors already named, we find Astruc, Doublet, and Mauriceau among its supporters. It is, however, but justice to the present distinguished members of the profession among the French nation to acknowledge, that although this title for the disease is still retained, the hypothesis upon which it was grounded, has been very generally abandoned;—so generally indeed, not only in France but in every other country, as to require no further notice.

The next popular theory was suggested by Charles White, Esq., of Manchester, England. The first edition of his work was published at Warrington in 1784, and a second at London in 1792.

The opinions of Mr. White as delivered in his own words are as follow:—"This disorder is owing to the child's head pressing the vessel or vessels which arise from one of the lower extremities, against the brim of the pelvis, during a labour pain, so as to stop the progress of the lymph; that the number of valves will effectually prevent it from regurgitating, and if the head continues any time in that situation, while the lymph is driven on through the valves by the peristaltic contraction of the coats of its vessels, by the great exertion of the muscles, and the strong vibrations of the inguinal artery, though its coats should be allowed to be stronger than those of the blood-vessels, it must at last burst and shed its contents. When the orifice made in the lymphatic is healed, and the diameter of the tube is contracted, or totally closed by the cicatrix, the lymph is retained in the lymphatic vessels and glands of the limb, and labia pudendi, and distends them to such a degree and so suddenly, as to occasion great

pain and swelling, which always begin in the part next to that in which the obstruction is formed, and when the obstruction is in part or wholly relieved, or the lymph has found a fresh passage, the part next to it is consequently relieved."—*London Edition.*

To this hypothetical explanation of Mr. WHITE, great and insurmountable objections arise.

1st. Agreeably to this notion, we should have the disease almost constantly occurring after severe and long continued labours, and never in those which are easily and expeditiously accomplished; neither of which is true. It happens, according to my limited experience, as well as the testimony of nearly every author who has treated on the subject, as frequently after easy as more difficult parturitions.

2nd. If a vessel of the size supposed by Mr. WHITE were ruptured, such a degree of effusion and consequent tumefaction would undoubtedly occur in the part, as to render its existence evident at the time; which is not found to be the case.

3rd. There is no reason whatever for supposing a rupture of a lymphatic to take place, without a like rupture and laceration of other parts within which those vessels are imbedded, and whereby they are protected. As a hollow and flexible tube, the sides of a vessel of the kind would necessarily be approximated by the pressure to which it would be exposed, and thus occupy a space not sufficiently prominent to be strongly acted upon by the passing head; and the lymphatics are known to anatomists to be of a texture far too strong to be torn by slight causes.

4th. This explanation does not accord with a circumstance of frequent occurrence in the progress of the disease, viz: The existence of the swelling first in one leg, and subsequently in the other.

The lymphatics on both sides of the pelvis being equally exposed, we may presume that when a rupture of vessels on both sides happens, it would be at no great distance of time; consequently, the swelling in both legs would appear simultaneously, or nearly so; and not first in the leg of one side, and after its subsidence, in the other.

If, however, the rupture be supposed to take place on one side only, then we have no explanation of the subsequent swelling of the opposite limb.

Finally, If it be admitted that the proximate cause of this complaint consists in an obstruction of the lymph, in its progress through one or more large vessels, towards the thoracic duct, whereby swelling and pain are produced throughout their ultimate ramifications, this may be better explained by supposing inflammation to arise in the trunk of a lymphatic and extend to one or more glands, or primarily in the glands themselves. In either case the stagnation conjectured by Mr. WHITE to occur, would take place, even more effectually than by a cicatrix blocking up the calibre of one or two vessels; and this condition can be fully and satisfactorily accounted for, on ordinary and established principles.

Shortly after the appearance of the 2nd edition of WHITE's work, the medical world were favoured with an able review of it, with additional remarks on the same subject, by his learned and enlightened countryman, CHARLES BRANDON TRYE, Esq., which was published at London in 1792.

In that communication, Mr. TRYE, after most satisfactorily overturning the position of WHITE, as regards a rupture of vessels, declares his belief in "lymphatic inflammation," involving not only the vessels of the part affected, but also the glands with which they communicate. As the pathology of the disease contained in the essay of this accomplished scholar, is substantially the same as that which will be stated in the conclusion of these remarks, a further notice of the work is deemed unnecessary at present.

In the subsequent essay on the same subject by the celebrated Dr. FERRIAR, we can discover nothing but a confirmation of the views of this able writer.

The doctrine of lymphatic inflammation appears likewise to have been espoused by Drs. DENMAN and LATHAM, although not fully explained or forcibly inculcated by either of them. More recent than either of the foregoing, is the treatise of Dr. HULL, of Manchester: a work replete with learning and abstruse inquiry; more remarkable, however, in my humble opinion, for *these* properties, united to a cold contempt for all the opinions of his predecessors, than the clearness of his facts, or the soundness of his deductions. Nevertheless, as the hypothesis (for we can accord to it no higher claim) of this well known writer, has been exten-

sively promulgated, and very generally embraced, I must beg the reader's indulgence while briefly examining it, together with the facts upon which it is based.

Dr. HULL thinks "the *proximate cause* consists in an inflammatory affection, producing *suddenly* a considerable effusion of *serum* and *coagulating lymph* from the exhalents into the cellular membrane of the limb." The seat of this inflammation he believes "to be in the muscles, cellular membrane, and inferior surface of the cutis. In some cases, perhaps, the inflammation may be communicated from these parts to the large blood-vessels, nerves, and the lymphatic vessels and glands imbedded in them: For it may be easily conceived, says the doctor, that these parts, though not very susceptible of primary and original inflammation, cannot always escape a participation of the disease; since they derive their arteries and veins from the same sources; and since, when the effused matter is purulent, or unusually acrimonious, they may be considerably irritated by being immersed in it. The lymphatic system is peculiarly liable to suffer from acrimonious fluids, because these, in consequence of their absorbing functions, are applied freely to the irritable internal membrane of the lymphatic."

Dr. HULL does not pretend to support this opinion of the proximate cause of the disease by an appeal to any direct facts or observations; but rests the matter almost wholly on assumptions. The pyrexia by which it is preceded and accompanied, he thinks, manifests the existence of general inflammatory action; and that the pain, heat and swelling of the affected parts, prove the presence of topical inflammation. But why he supposes this inflammation to be seated "in the muscles, cellular membrane, and inferior surface of the skin," we are left to imagine; at least I have observed in his essay neither facts nor arguments to prove it.

Although at first sight he seems to consider the affection as primarily situated "in the muscles, cellular membrane, and inferior surface of the skin; and secondarily in the blood-vessels, nerves, and lymphatic vessels and glands," it is only to be understood as indicating the order of succession *in the limb;* for in another part of his essay the doctor has laboured to prove a connection between phlegmasia dolens and peritonitis puerperalis; and in fact

the dependence of the former upon the latter disease. Now if this latter proposition be true, the question will naturally arise, why the peritoneal affection does not extend to those muscles with which it is in contact, and the contiguous skin and cellular membrane, rather than seek an abode in like textures in the more distant leg and thigh. And yet who ever saw peritonitis affecting those parts of the abdomen?

It is a rule in pathology, now sufficiently ascertained by observation, that inflammation is modified by the particular tissues or parts in which it happens to be seated; and its terminations are not less influenced by the same circumstance.

Thus, inflammation may attack a serous membrane in one part of the body, and be translated to a serous membrane in another and distant part; but it is not apt to be translated to a *different tissue* in a remote part. When, therefore, inflammation extends from one tissue to another, it is commonly to parts in immediate contact.

Can, therefore, any one at this day believe in the extension of inflammation from the peritoneal lining of the abdomen to "the muscles, cellular membrane, and cutis of the thigh and leg;" and that those parts shall become, not gradually and successively, but simultaneously, inflamed? And that again, all at once, or "suddenly," to use our author's own language, those parts, so differently constituted, and ordinarily obeying different laws, both in health and disease, shall, by a like unaccountable harmony, relieve themselves at the same moment by the abundant effusion of precisely the same matter? To admit this explanation would be to confess a unity of action between parts of dissimilar structure and use, not found in a state of health, nor ever, I apprehend, in that of disease.

Upon every view of the case, I can but reject the author's opinion of the existence of inflammation in those different tissues, as being not only unproved, but inconsistent with reason and common observation. A remark now occurs in regard to the extension of the inflammatory action to the lymphatics. When, says Dr. Hull, "the effused matter is purulent, or unusually acrimonious, they (the lymphatics) may be considerably irritated by being immersed in it." Here then he is forced to admit the occasional existence of inflammation in the lymphatics; a position

against which his mightiest arguments are directed: but he also confesses that the effused matter does not always consist of serum and coagulable lymph, but may be "purulent or acrimonious." Thus he recognizes four different kinds of effused matter, without showing the distinctive or modifying circumstances by which those different cases are attended. The next position of Dr. HULL, is, that this supposed inflammation relieves itself by effusion; an opinion which he has advanced in a like unsatisfactory manner. Having, however, advanced the opinion, he offers the following arguments to prove, not the *existence* of the effused matter, but its *nature!* It would have been far more satisfactory if he had first demonstrated the actual presence of the effusion, and *then* its properties; the only course capable of eliciting truth, or at all consistent with the rules of true philosophy. That the effused fluid differs in consistence, or the proportion of its parts, he thinks is proved by punctures, and incisions, made in the affected limb; "for, wherever these have been made, it has been found impossible to draw off the whole of the effused matter, and reduce the limb to its natural size, as may generally be done in cases of anasarca."

Now if this remark proves any thing at all, it is that the swelling and enlargement of the limb is not a mere anasarcous affection: a fact which all the world admits; but it by no means proves that the enlargement is owing to the effusion of coagulable lymph; much less does it prove that it is not an inflammation or other derangement of the lymphatic system.

But that this enlargement is not owing to the effusion of coagulable lymph, is evident from common observation. Every one knows how much coagulable lymph is disposed to assume an organized existence, and how exceeding slowly it is removed, in cases where it is necessary for it to be destroyed; yet here we have a leg swelled to double its ordinary size, reduced to its accustomed dimensions, or nearly so, sometimes in forty-eight hours, and often in the course of three or four days. That system of vessels which often requires months for the removal of a single speck of coagulable lymph from the cornea, or a small patch in the pleura, must here remove fifteen or twenty pounds in the course of a few days! As far as I understand the doctor's opinion of the nature of this swelling, it is to the *effusion* that he attributes the enlargement of the limb, and not to the previous inflammation.

That the vessels of a part should suddenly take on an action capable of throwing out a mass of serum and coagulable lymph, equal to the whole bulk of the leg and thigh, and that too for the relief of a slight extent of inflammation, so slight as not to be susceptible of demonstration, is a position which requires no refutation.

If this were a case of inflammation, suddenly terminating by extensive effusion, and the enlargement of the limb owing to that effusion, then, with the sudden swelling and enlargement of the limb, we should have a termination of the sufferings of the patient: there should be no more pain and tenderness of the affected part, nor febrile disturbance of the general system; whereas, the distress of the patient, constitutional and local, is never greater than when the swelling is at its height; and the first abatement of the patient's suffering, is generally indicated by a subsidence of the swelling.

Dr. Hull has endeavoured, throughout his elaborate production, to prove that the lymphatic system has "neither part nor lot in this matter." This course, it seems, was essential to the overthrow of what had been written by Denman, White, Trye and Ferriar, and for the better admission of his own system. I shall therefore examine some of his *cases*, as it is chiefly in the histories of them that he has endeavoured to sustain this position, and see how far he is borne out by his own reports. And here the reader will doubtless be surprised to learn, that of twelve cases which he has reported, four only fell under his own observation; and of *these*, he witnessed the commencement and progress of *one* only: those four, however, being his principal pillars of support, and the only ones for the accuracy of which he is responsible, we shall examine briefly, touching only their most prominent and essential circumstances.

The first case was that of a lady of Manchester, whom Dr. H. attended from the 1st of April, until the 21st of June, a space of nearly three months, and treated with pretty active medicines for dropsy. At the last date, (June 21) she was delivered; and on the 27th of June, viz. three days subsequent to accouchement, she was attacked with puerperal fever, which, by medical treatment, soon passed off, and she was seized on the 6th of July, (fifteen days after delivery,) with what Dr. Hull has been pleased to call phlegmasia dolens; although it differed from the general history of that complaint in several material points.

For instance, both labia were exceedingly swelled, but only one leg and thigh. Now nearly every writer who has described this complaint, either before or subsequent to Dr. Hull, has laid it down as a characteristic of the affection, that the swelling is bounded by the middle line of the body. Again, a red blush was also discovered upon the affected leg, and this was seen several days after the attack; which is certainly an unusual symptom in this disease. From the commencement to the conclusion, *not a word is said of either the secretion of milk, or the lochial discharge!*

Taking into consideration the doctor's own account of this woman having laboured, first under anasarca gravidarum, then puerperal fever, and lastly, phlegmasia dolens, attended certainly with unusual circumstances, and in the history of which he has failed to inform us of some very material ones: considering its many complications, and the imperfection of its details, I think we are justified in rejecting it entirely, as having no bearing upon the subject.

The doctor does not fail, however, to tell us at almost every visit, that there were no marks of lymphatic inflammation: yet, on the 9th of July, he admitted there were lumps, or inequalities, *in the very places occupied by the conglobate glands;* but, as he fancied they were less round and circumscribed than glands *ought* to be, he therefore concludes them to have been lumps of coagulable lymph. And still further to enforce this point, on the 15th of July, he inquired of the *nurse*, and was told, that "*neither then, nor during any part of the course of the disease, had she perceived streaks, cords, or lumps, such as he described to her as taking place, when the lymphatic system is affected with inflammation, or enlargement.*"

Here, then, what Puzos, Denman, White, Trye, Levret, and every body else, considered as conglobate glands, are converted, by the magical touch of Dr. Hull's fingers, into mere lumps of coagulable lymph, because forsooth they were not round enough for his fancy: and still further to establish the matter, we have the discriminating fingers of the lady's nurse put in requisition!

In the 2nd case, that of Mrs. Hulse, the attack commenced with "coldness, rigors, and other pyrexial symptoms," and with violent pain in the right side of the abdomen, which began a little above the crista of the ilium, and extended to the spine and to the umbilicus. The left side remained free from pain. "Two

days after, she was seized with severe pain in the groin, and superior part of the right thigh, which descended to the leg and foot, and a tense, colourless, elastic, swelling of the whole limb supervened." On the 17th day from the commencement of the attack, Dr. H. visited her *for the first time*, and his account is as follows: "Both the lower extremities were considerably swelled, hot, tense, and exquisitely tender when touched; they were not discoloured, nor did they retain the impression of the finger in any part, except in a very slight degree. The pain was abated; but was still very troublesome on attempting to move her limbs. *There was not any perceptible inflammation, or enlargement of the lymphatic glands, or vessels.*"

Let me ask how it was possible for Dr. H. to discover whether the lymphatic glands and vessels were swelled or not, circumstanced as the case was when he first saw it? Fifteen days from the attack, the limbs swelled perhaps to double their ordinary size, the skin stretched over them like a *drum-head;* so tense that the finger could not leave an impression; buried in the cellular substance beneath the skin thus resisting, who could discover whether the lymphatic vessels and glands were or were not in a healthy condition? especially when the parts were so exquisitely tender that the practitioner scarcely dare touch them!

Of the 3rd case, Dr. Hull neither witnessed the commencement nor termination. The history presented to him was, that the right thigh and leg were swelled and painful during pregnancy, but went off soon after confinement. "Eleven days subsequent to accouchement, she was seized with rigors, head-ach, and other pyrexial symptoms; and on the afternoon of the same day, with pain in the right hip, which on the day following extended to her groin, thigh and leg, and was afterward succeeded by a tense, elastic, lucid, hot, tender, painful swelling of the whole limb."

Dr. Hull's attention commenced two days subsequent to the swelling, and continued six days.

"*During the time that I visited her*," says the doctor, "*the swelling, tension and tenderness of the limb did not abate.*" "I examined the limb carefully different times, but did not perceive inflammation, or enlargement of the lymphatic vessels or glands."

To this case precisely the same objections apply as to the preceding. It was, I apprehend, impossible, in the "tender," "tense,"

"painful," and "swelled" condition of the parts which the doctor has acknowledged to have existed, for him to have made any correct examination at all, without putting the patient to a degree of pain much greater than we can suppose the humane feelings of Dr. Hull would suffer him wantonly to inflict.

In the fourth case, there was likewise pain in the flank, groin, inside of the thigh, swelling, &c., so like those already cited, that it is unnecessary to relate them more circumstantially.

Dr. Hull did not see this case until some days after the occurrence of the swelling, and urges precisely the same objection to lymphatic affection as in the preceding.

The remaining eight cases are reported by the friends of Dr. Hull, and all in so brief and uncircumstantial a manner as to place them beyond the reach of criticism.

It is worthy of remark, that in all the cases reported by our author, pain and uneasiness were experienced in the precise situation occupied by the inguinal glands, and those within Poupart's ligament; and that this pain, associated with rigors, head-ach and the whole train of pyrectic symptoms, in every instance *preceded* the pain and swelling of the leg and thigh: Yet, with this strong testimony before his eyes, he has disclaimed all belief in the affection of either the lymphatic vessels or their glands; at least as a primary disease.

We have noticed the essay of Dr. Hull thus circumstantially, not from any thing remarkably plausible or ingenious contained in it, but from the high character of its author, and the popularity thence imparted to every thing which has fallen from his pen, and to this production in particular.*

We pass over the suggestion of this disease being identical with rheumatism, from the paucity of the facts by which it is supported, and the conviction that a different conclusion must have been drawn by all who have attentively witnessed the two diseases.

In the 12th vol. of the London Medico-Chirurgical Transactions, there is a paper by Dr. Davies, in which he endeavours to make it appear that phlegmasia dolens is the result of an inflammation

* If it shall be thought that we have, in speaking of Dr. Hull's work, "spoken plain truths in too plain a manner," we reply that it has been by no means from a want of respect for its author, but for truth's sake, and in strict conformity with his own example.

of one or more large veins, terminating in the formation of artificial membranes and other obstructions within their cavities, whereby the free return of blood from the extremity is prevented. As this suggestion is grounded on certain phenomena observed by Dr. D., in four cases dissected by himself and Mr. LAWRENCE, and hence professes to rest upon the best of all foundations, viz.—facts revealed by actual observation after death, it is both necessary and proper to bestow upon it the most respectful attention.

In canvassing the opinions of Dr. DAVIES on this point, I beg to be understood as placing the fullest reliance on the accuracy and fidelity of his anatomical reports; and therefore as merely questioning their applicability to the subject under consideration; which I do for the following reasons:

1st. I believe that an attentive consideration of the cases reported by Dr. DAVIES, their symptoms and progress, prove them not to have been phlegmasia dolens at all—using the term in the sense applied to it by all the authors who have particularly described it before him; and if any of my readers should be startled at this assertion, I beg them to read the histories of them as given in the author's own paper, and then compare them with the description of the disease as contained in GOOD, WHITE, THOMAS, or any other author of established reputation, and I venture to assert that it will be found that they contain not one diagnostic mark of phlegmasia dolens.

2nd. Inflammation of veins is by no means a rare occurrence, but is often produced by punctures, as in phlebotomy, by ligatures, poisons, &c. Yet we never witness symptoms like phlegmasia dolens following or attending upon such condition, in the arms and other parts where such accidents generally happen. At least there has been no similarity in the cases which have fallen under my observation or that of my friends, nor in the reports of journalists, as far as I am acquainted with them.

3rd. The ordinary and immediate effects of *venous obstruction*, I take to be, if sudden and complete, a dark or livid appearance of all the parts below the obstructing cause; if gradual or in a less degree, a dropsical or œdematous condition to the same extent; and in both instances, a *diminished sensibility of the part so influenced.*

Now as the colour of the parts affected by phlegmasia dolens is not livid, but remarkably white; and as the swelling does not pit on pressure being made with the finger, like œdema, but on the contrary is firm and elastic; and as the sensibility of the part is not diminished, but mostly excited, I take the whole train of phenomena, as usually and constantly observed in venous obstruction, to be quite the reverse of those which characterize phlegmasia dolens. Hence it cannot be owing to venous obstruction.

That it is not *venous inflammation*, is rendered certain by a like survey of the symptoms peculiar to each.

In inflammation of the veins there is an intense redness, not only of the vessels affected, but of the whole subjacent parts, very often terminating in suppuration; there is always great constitutional suffering, and if extensive, and not promptly relieved, very often a fatal termination.

Indeed I can scarcely conceive it possible that inflammation could ever occur in the iliac and other large veins of the thigh and pelvis without a fatal termination—either from suppuration, and the matter travelling into the circulation; gangrene of the vessels; or the extension of the inflammation from the iliac veins to the vena cava, and thence to the heart; either of which must inevitably destroy the patient. And this result is actually verified by Dr. DAVIES' own cases.

We hence conclude, either that the cases of Dr. DAVIES were not genuine phlegmasia dolens, or that they were connected with very unusual and complicating circumstances; and that in either case, we cannot receive the appearances revealed by dissection as proper data for the foundation of a rational theory of the disease, as we ordinarily meet with it.

It is but a bad compliment to the skill of Dr. DAVIES that he should have dissected *four* cases of a disease of very rare occurrence, and which all writers upon the subject admit seldom or never terminates fatally. It is far more reasonable to presume that they were cases of phlebitis, resembling phlegmasia dolens, but specifically different in their pathological circumstances as *well as their termination.*

In the "Dictionnaire de Médecine, tome seizième," there is an interesting article on inflammation of the veins by BRESCHET, under the head of "*Phlebite.*"

In that article, SASSE, MECKEL, WILSON, CLARKE, CHAUSSIER, and RIBES, are all said to have found *inflammations, terminating in suppuration, obliteration, &c. of the uterine and iliac veins, and even the vena cava, subsequent to parturition;* yet no mention whatever is made of either of those cases having been attended with *phlegmasia dolens*—an omission not to be presumed when we consider the source from whence the reports come.*

Some cases are likewise reported by Professor VELPEAU, of France, going to establish the same position; although the reporter does not appear to attribute the disease exclusively to that source, but partly to a diseased condition of the sacro-iliac symphysis, and of the peritoneum; all of which seem to have been present in the cases examined. The results are, however, considered by the advocates of venous inflammation, as lending support to Dr. DAVIES' views.†

Happily the learned author has given us the symptoms evident during the lives of his patients, as well as the facts revealed by dissection.

After the most attentive examination of these cases, I confess myself entirely unable to discover in *either of them*, a single characteristic trait of phlegmasia dolens. They no more answer to the description of this disease given by WHITE, TRYE, FERRIAR, HULL, and nearly every other writeron the subject, than to rheumatism, gout, anasarca, or erysipelas.

It is not a little astonishing, that such men as M. VELPEAU and Dr. DAVIES, when writing professedly to communicate *new views* on an important practical subject, should commit themselves so egregiously—especially where the diagnostic signs are so firmly and universally established! By this plan of attaching *the name* to a train of phenomena altogether different from those pointed out by our predecessors, there would be no difficulty in making out its pathology to consist in inflammation either of the veins, the pleura, peritoneum, arachnoid membrane, or of the great toe! It is this want of precision, this neglect of calling things by their

* The fact of parturient women being so liable to inflammation of those large vessels, proved by the observation of such men, and their frequent fatal termination, establishes at once the character of Dr. Davies' cases.

† Recherches et Observations sur la *phlegmasia alba dolens*. Par M. Velpeau, Chef de Clinique à la Faculté de Médecine de Paris. Archives, Octobre, 1824.

right names, that causes so much confusion and discrepancy in most of our controversial essays.

To prove that I have not assumed too much in considering the diagnostics of phlegmasia dolens to be completely established, I will here recite some of the observations of Mr. WHITE, published more than forty years ago; in which it is clearly contradistinguished from those other affections, which it most nearly resembles.

"It appears very evident," says WHITE, "that it is not a sciatica, as it does not attack the hip joint in particular, *but the groin and labium pudendi of the same side, the inside of the thigh, leg, and foot, and the whole limb.*

"It is not rheumatism, as neither the joints nor muscles are principally affected; nor is there any external inflammation, *but on the contrary, the skin is rather paler than in a natural state;* and has attacked those who never had the rheumatism, either before or since, and those who have had no suspicion of catching cold.

"It is not an anasarca, because it is more tense and hard, and does not pit when pressed upon with the finger, nor subside so much by an horizontal posture; nor does any water issue from it, on its being punctured; nor is it so cold in any stage of the disorder.

"It is not a phlegmon, or an erysipelas, as there is *neither external inflammation nor eruption; and though one labium pudendi is greatly swelled, it never extends to the other in the smallest degree, except the limb on that side is also swelled;* neither is it an iliac abscess, or an abscess under the fascia lata, as *it never comes to suppuration.*"*

The last assertion of WHITE has, indeed, been denied by some writers, viz.—"*it never comes to suppuration.*" But, the little that I have seen of this disease, and the far more that I have learned of it from the writings of others, convince me, however, that it is strictly true, as the author, no doubt, intended to be understood. That is, suppuration is not one of its common and ordinary occurring circumstances. That it may by mal-treatment, or some peculiar and complicating circumstances, not at all belonging to

* An Inquiry, &c. By Charles White, Esq., F. R. S., &c. Warrington edition, 1784, p. 37, 8.

its regular course, be forced into that state; or rather, that the inflammation may by such violent causes be extended to parts not ordinarily the seat of this disease, as the muscles and cellular membrane, and thus run on to suppuration, is no strange matter.

Professor Hosack regards phlegmasia dolens as an inflammation of *all* the tissues of the limb: Blood-vessels, absorbents, muscles, cellular membrane, skin, &c.; thus imitating the schoolmaster, who, to be sure of chastising the culprit, whipped all the boys in his school; a very summary way of arriving at the object, but hardly consistent with justice or sound philosophy. With all deference to this learned and distinguished author, I must confess that I cannot conceive of an inflammation of all the blood-vessels of a limb, without the appearance of redness; nor so extensive inflammation as that involving every tissue of a part, without its termination in suppuration, gangrene, or other bad consequences, far more frequently than happens in phlegmasia dolens.

Having so far objected to nearly all the explanations of the proximate cause of phlegmasia dolens, which have been offered to our acceptance, the reader will probably think it time for me to declare affirmatively.

In stating my views on this subject, I am happy to say that they differ but little from those entertained by Trye, Gardien and Capuron; and are not inconsistent with the notions of Denman and Ferriar as to its seat, and exciting causes.

I believe it to consist in a complete "*engorgement*" of the whole lymphatic system of the affected limb; produced by an inflamed condition of the different conglobate glands, through which the chief lymphatic vessels have to pass, on their way from the affected part, to the thoracic duct.

This inflammation may occur either primarily in one or more glands, or first in a principal lymphatic trunk, and thence extend to the glands. And this may originate either, 1st. from the gland or lymphatic trunk being bruised by the passage of the child's head through the pelvis during labour: or 2nd. from exposure to cold, and especially a damp or humid atmosphere; or the putting on of ill-dried clothes, during the irritable condition of the female system which attends the puerperal state: or 3rd. from the absorption of some acrimonious matter, whereby the internal surface of the lymphatics themselves may be excited to

inflammation, and thence extended to their appropriate glands; or the matter may be transmitted to the glands, and there excite inflammation. My reasons for the opinions which have been advanced are briefly, as follow:

1st. The fact of every woman's exposure to one of the preceding exciting causes, and frequently to all of them.

2nd. The uniform occurrence of pain or uneasiness about the passage of the round ligament, in the groin, and down the inside of the thigh, *preceding* the existence of swelling or other affection of the limb whatsoever: showing conclusively the priority of disease in the glands and their communicating trunks.

3rd. The white colour of the affected limb; which can only be accounted for satisfactorily, by supposing an "*engorgement*" of the vessels which carry white fluids; for were it congestion of the blood-vessels, as in ordinary inflammation, there would necessarily be redness, instead of the white aspect.

4th. The state of the woman's system generally, as the pulse, tongue, hectic form of fever, &c., all of which manifest a state or condition totally different from what is observed in cases of high and unequivocal inflammatory action; evidencing a state of *irritation*, or inflammatory action of a low or sub-acute character. This state of irritation may be readily accounted for, by the great distention of the lymphatic vessels of the limb, throughout their utmost ramifications, and the consequent pressure which must thence be made upon the immensity of nervous fibrils by which they are surrounded.

Lastly. Its termination; which is far more uniform, and less fatal, than an equal extent of inflammation, attended with congestion of the blood-vessels, seated in any part of the body; proving, incontestibly, that it must have a course peculiar to itself; which course, very commonly commencing by a diminution of pain in the iliac and inguinal regions, and next of the swelling of the parts nearest those glands, indicates very clearly the seat of the disease to be in the lymphatic system, and especially the conglobate glands.

In illustration of the foregoing positions, I will now recite a few cases; touching only their most prominent points, that I may not transcend the limits prescribed to articles intended for publication

in a periodical journal, in which variety of matter must necessarily be a prominent object.

Case 1st. By Dr. MALCOMB. *American Medical Recorder, October*, 1818.—"At the sixth month she sent for me, when I found her complaining of severe pains about the hips and back, which much disturbed her rest at nights. To relieve these symptoms, I opened a vein at the arm and took sixteen ounces of blood, and directed laxative medicines to preserve her bowels in a soluble state, with the occasional use of an opiate if necessary.

"At the full time, she took her labour, when, after a short and comparatively easy period, I delivered her of a healthy female child. Nothing material occurred until the *eighth day after delivery*, when she began to complain of pains in the calves of both legs, more particularly the left, which soon became more remarkable in the right, changing to the left, and lastly shifting and fixing in the right leg, viz. four days after the attack, when, *following the course of the lymphatics on the inside of the leg and thigh, to the inguinal glands, these also became painful; the limb now was greatly swelled, its surface of a glossy and deadly paleness, and was insufferably tender to the slightest touch or pressure.*"

Case 2nd. By Dr. R. M. TALIAFERRO. *American Medical Recorder, April*, 1818.—"She informed me, that about forty-eight hours previous to my being sent for, a pain and stiffness were felt in the groin, near the passage of the round ligament; shortly *after which* the swelling commenced, and upon examination I was surprised to see the limb, for it was at least double the ordinary size; it had a smooth shining appearance, and was very hot, though not red."

Case 3rd. By Dr. LOFLAND. *American Medical Recorder, July*, 1818.—"Sometime in September, 1816, I was called to visit a lady of delicate constitution, aged twenty-nine years. Fourteen days previous, she had been delivered of a fine child. Upon inquiry into the circumstances of her case, I found that she was labouring under what has been sometimes called the "*milk or swelled leg.*" She informed me that nothing remarkable had occurred since her delivery, until about twenty-four hours before my being sent for, when she was very much troubled with a pain and tossing in the lower belly; this, after a little, subsided entirely, and was succeeded by an intolerable and *excruciating pain and stiffness*

about the groin, near the passage of the round ligament, and the origin of the sartorius muscle. This violence of pain continued down the course of the sartorius muscle, and settled near its insertion. *Immediately the swelling commenced;* and as it proceeded it procured an abatement of pain, till at last it ceased altogether. I was astonished to find, upon examination, the bulk of the limb, from the hip to the toes, more than double its ordinary size; it was very hot, *though not red;* it had a tense, pale, and somewhat shining appearance. The labium pudendi of the side affected was exceedingly swelled, and completely marked the extent of the disease laterally; this symptom is mentioned by Mr. WHITE, who considers it as a characteristic mark of the disease. In the present case it was so affected, that it in a great degree obstructed the flow of urine."

Remarks.—The preceding are all well marked cases of phlegmasia dolens. In each there was *great swelling of the extremity*, though it was *pale, hot, glossy, and exquisitely painful.* In all of them the pain experienced was precisely in the parts occupied by the lymphatics and their glands; and however severe the pain was in the course of the vessels prior to the glands being affected, as in Dr. MALCOMB's case, still there was no *swelling of the limb until the glands, through which those vessels passed, had become distinctly and severely affected;* and their "free return of lymph being obstructed," "engorgement" and swelling took place.

I have said that the disease may arise from the bruising of some of the lymphatics or their glands by the passage of the child's head. Of this I have at hand no direct proof; the possibility of it can, however, scarcely be denied. That it may arise from uterine irritation, and the absorption of acrid matter either generated there, or in any part of the extremity below the principal conglobate glands, we have the following proof:

1st. In the fourth case of WHITE; it occurred after the delivery of a dead child, which had been preceded by hæmorrhages, and other strong marks of uterine irritation; the lochia was also "putrid."

2nd. In the 6th case, reported by the same gentleman, it followed a premature birth of a dead child; she laboured under suppression of urine, "a large discharge, like fluor albus," &c.

3d. In the 9th case, of the same excellent author, it was

preceded by "*a large and offensive discharge, per vaginam*, attended with violent forcing pains *and excoriation.*"

4th. Cases have happened from the absorption of matter from an ulcer on the leg, under the notice of TRYE and others. Cases similar to the above, are also reported by Dr. DICKSON of Edinburgh, and by almost every other author on the disease.

That it may be produced by cold, is proved by the case noticed by Dr. HOSACK, Jr. of New York, by daily observation, and by the declarations of M. CAPURON, and several other authors. It acts here as in the production of any other form of disease: and although men, as well as unmarried women, are sometimes attacked by it, still, the greater liability of females during the puerperal state, I apprehend, may be readily accounted for. It is well known that the nervous and absorbent systems exceed in females, the proportion of other parts, when compared with the other sex; and that those systems experience, during the gravid and puerperal condition, a considerable exaltation and development. The process of parturition, by the changes which are then produced in the whole circulation, especially the lymphatics of the lower extremities, in which the action had for a time been oppressed and languid, and now being suddenly relieved, produces a degree of irritability greater than at any other time; in this irritable state, a susceptibility to impressions exists, which renders them obnoxious to causes which in a different condition would be totally harmless.

Of the occasional existence of phlegmasia dolens in the unimpregnated, as well as pregnant female, we have several cases recorded; and in the male sex, a still greater number: among them we will merely mention one by Dr. FRANCIS, another by Dr. HOSACK, in the New York Hospital, and one by Dr. BOND, of this city. That by the latter gentleman is so instructive in all that relates to the disease, and so well reported, that I shall take the liberty of extracting a part of its history. The disease occurred in a man thirty-two years old, after a violent injury from the fall of a boat, by which his leg and thigh were broken, and some of the ligaments ruptured. His fractures were properly attended to, and "he continued, says Dr. BOND, as easy as could be reasonably expected, from the nature of the injury, until the 29th of April. In the afternoon of that day, which was precisely two

weeks from the time of receiving the injury, a *pain commenced in the lower part of the abdomen, and the groin of the left side*, which was very intense during that night and the next day, in the evening of which I arrived.

"The fractured limb at this time gave him very little uneasiness; it was so well, that I had not seen him for two days. *The pain began in the course of the glands and lymphatics*, from the top of the thigh *towards the receptaculum chyli;* but there was some pain diffused through the left half of the pelvis. From the groin, the pain had gradually extended down the thigh to the knee, and into the calf of the leg, where it had reached when I arrived, and where there was, then, the most excruciating pain. It was a little more than twenty-four hours in passing down thus far. The limb was one third larger than natural, and the swelling was greatest in the thigh and knee.

"*May 31st, morning.*—The leg is more tumid than any other part of the limb; *skin is pale, hot, glossy, and* has an œdematous appearance; so extremely sore, that he can hardly endure to have it touched or moved."*

I shall here close this paper, announcing my intention, in a future number of this Journal, still further to illustrate this subject, by a detail of some cases which have fallen under my own notice; on which occasion, I shall also speak of the treatment.

ARTICLE III.—*Case of Ruptured Urethra.* Communicated by D. FRANCIS CONDIE, M. D.

PATRICK M'GONIGAL, aged about forty years, of a robust and healthy constitution, on the 4th of March last, whilst in the act of mounting a horse, was, in consequence of the strap of the stirrup giving way, thrown upon the ground; whilst lying upon his back, with his foot entangled in the stirrup, he made several violent but ineffectual efforts to regain his footing.

Being disengaged from the horse, and lifted from the ground, he was able to walk some considerable distance to his home; when he arrived there, he discovered that blood was flowing, profusely,

* Philadelphia Journal of the Med. and Phys. Sciences, vol. II. p. 339.

from his penis. About half past nine o'clock, P. M. I was sent for:—I found the patient sitting in a chair, a full stream of bright coloured blood flowing from the orifice of the urethra; he complained of a slight pain in the small of his back, and some degree of weakness. On examination I could discover no mark of injury upon any part of his body externally,—not even the slightest scratch or bruise. The amount of blood he had by this time discharged was considerable. He was directed to go to bed, to have cloths wrung out of cold water applied around the penis, and to the pubes, and to take a dose of sulphas magnesiæ, in divided portions. Being sent for early on the morning of the 5th, I found him in great agony, from a constant desire, without the ability, to void his urine. The bladder was greatly distended: he had never before been affected with a stoppage of the urine, and had, a few minutes previous to the accident, passed it in a full and free stream: during the night, he had discharged, at intervals, a small quantity of blood. From the whole of the circumstances of the case, it was very evident, that the distention of the bladder was caused by blood, which had flowed in a retrograde direction, from the urethra, into the cavity of the former. I sent for my catheters, and very readily passed one into the bladder,—through it was immediately discharged about a pint of blood, mixed with a small quantity of urine, followed by a number of small coagula; the discharge stopping, I withdrew the catheter, which was completely filled with coagulated blood. On attempting to introduce another of the same size and curvature, I found that I was unable again to pass it into the bladder:—after entering the urethra about an inch, the instrument appeared to escape from the natural canal, when its further progress was immediately arrested; by a slight change in the direction of the point of the instrument, this first impediment was, without much difficulty, overcome, and the catheter could be passed on, until it arrived at the arch of the pubes, where it was found to enter an unnatural opening at the inferior part of the urethra; its point being felt almost immediately beneath the skin. Finding my efforts to reach the bladder unavailing, I requested Dr. Reynell Coates to see the patient with me; the same impediment to the introduction of the catheter was still experienced, notwithstanding the size, form, and direction of the instrument were varied, in every possible manner:

on every attempt to introduce it considerable hæmorrhage was produced. The patient was directed to be put into a warm bath, to take a grain of opium, and to have cloths wrung out of warm water kept applied over the distended bladder. The attendance of Dr. J. Rhea Barton was now requested: an attempt was again made to pass the catheter, but without success. It was very evident to all of us, that the urethra had been torn across at two different places,—the one about an inch within the external orifice, the other at that part of the canal corresponding to nearly the centre of the scrotum. About twenty hours had now elapsed since the occurrence of the accident. The patient complained of much pain in the bladder, which latter was greatly distended, and rising considerably above the pubes. The propriety of an operation to evacuate the bladder of the blood and urine it contained, was suggested; as, however, the general system of the patient had, as yet, suffered but little; his pulse, strength and spirits continuing good, this, taken in connexion with the very doubtful result of any operation that could be performed, and the earnest intreaties of the patient to delay as long as was possible, induced us to wait the appearance of the case on the next day, before coming to any decision. In the mean time, the warm bath, warm fomentations over the pubes, and, internally, opium grs. iij. were directed. On visiting the patient on the morning of the 6th, I found, that during the night he had passed a considerable quantity of very dark coloured blood, mixed with urine; the distention of the bladder was somewhat reduced, and nearly all uneasy sensations were gone:—the scrotum and penis were somewhat swollen, and, together with the perinæum, were of a dark colour, from an injection of blood into the cellular tissue. The patient being costive, directed an enema. During the day, he continued to pass, at intervals, a large quantity of blood and urine, and during the night of the 7th, after a violent effort to empty the bladder, a coagulum escaped from the urethra, two or three inches in length, and nearly of the thickness of the little finger; it was followed by a very copious discharge of extremely dark coloured, somewhat fœtid urine.

8th. Nearly all swelling and uneasiness of the bladder removed: the urine passes off involuntary. Bowels being costive, directed a dose of castor oil. The patient appeared from this time to be

gradually recovering from the effects of the accident, until the 14th, when he complained of tenderness along the course of the urethra, with heat and smarting in the act of passing his urine. Skin hot, pulse quick and frequent, thirst considerable. In the course of the day, the pain in the urethra greatly augmented; on examination, found the latter, particularly in the perinæum, swollen and hard: the scrotum was also greatly enlarged, tense and painful, presenting many of the appearances of hydrocele: directed twenty-four leeches to the urethra, and a dose of sulph. sodæ. From continued neglect on the part of the patient, the leeches were not applied until the 17th. The pain, hardness and swelling of the urethra, were greatly relieved by the topical depletion. In the evening, the discharge of urine was again entirely suspended: the bladder somewhat distended, bowels costive; directed the leeches to be repeated to the same extent as before, and the patient to take, occasionally, a dose of the compound powder of jalap; the scrotum and region of the bladder to be kept constantly fomented with cloths wrung out of warm water: from these the patient experienced very great relief; and, on the morning of the 19th, he passed a coagulum, four inches in length, and about the thickness of a common quill, perfectly white, and rounded at the extremities; the coagulum was followed by about a quart of dark coloured urine: swelling and pain of the urethra, and distention of the scrotum, greatly diminished; in which state they continued, the patient passing his urine naturally, until the evening of the 21st, when the inability to evacuate the bladder, with the pain and swelling of the scrotum, again returned: every attempt to introduce the catheter was ineffectual. By the 22nd the tumefaction of the scrotum extended half way to the knees; a very considerable swelling was also discovered in the perinæum, soft, and without pain. On attempting now to introduce the catheter, the instrument, after continuing in the course of the urethra for a few inches, suddenly dipped down within the scrotum, and from thence gave discharge to a very considerable quantity of thick, ropy, deep coloured urine. At this period of the case, Dr. Hewson had the kindness to see the patient with me: it was concluded, that in order to give a free passage to the urine, an incision should be made into the urethra, at the anterior part of the perinæum: this was accordingly done, and through this opening, the urine

continued to be entirely discharged, until about the 30th. From the period of the operation, the swelling and inflammation of the scrotum very rapidly diminished, and were entirely removed by the end of the month, at which time the patient was able to walk out. The urine was now occasionally passed by the natural outlet; and by the 13th of April, the opening in the perinæum was entirely closed, and the patient discharged cured.

Remarks.—In regard to the foregoing case, it is not very easy to determine the actual cause by which the ruptures in the course of the urethra were produced. In the two cases referred to in Desault's Surgery, as well as in those reported in the number of the London Med. and Phys. Journal for January, 1827, the laceration was the result of an injury inflicted immediately upon the perinæum; but in the case before us, there is no positive evidence that any direct injury was received. It is true that the bystanders asserted, that whilst the patient lay upon the ground, with his foot entangled in the stirrup, he was trod upon by the horse; but the entire absence of any external contusion, or indeed even discolouration of the skin, would appear to render this highly improbable. Patissier (Dict. des Sci. Med., Art. Urèthre) assures us, that in two cases which came under his notice at the Hotel Dieu, the laceration took place spontaneously, from the mere efforts of the muscles: it is extremely difficult, however, to imagine in what manner muscular contraction could produce a rupture of the urethra.

It has been suggested, that as hæmaturia is frequently occasioned by violent falls, or great muscular exertion, the hæmorrhage, in the case of M'Gonigal, may have proceeded from the kidneys or bladder, and not from the injury of the urethra. Such an opinion is, however, fully refuted by every circumstance of the case. In hæmaturia, the blood, as it accumulates, excites in the patient, a desire to evacuate his bladder, and is not discharged, excepting by the same voluntary act as the urine; in this case, on the contrary, the blood flowed involuntarily; the patient had indeed lost a considerable quantity before he was even aware of the fact; pressure, likewise, upon the urethra, in perinæo, did not diminish the discharge, as would have been the case, if it had proceeded from the bladder; add to this the circumstance of the hæmorrhage being reinduced, upon every attempt to introduce

the catheter, notwithstanding the instrument passed but a short distance, and the greatest care was observed to avoid any degree of violence.

The case presents us, we conceive, with one highly important fact:—extensive collections of blood in the bladder have, generally, been set down as cases of imminent danger, and various plans have been proposed to remove the blood, with the least possible delay; it being supposed, that if it were allowed to coagulate in the cavity of the bladder, it would be got rid of only by artificial means: the foregoing case, however, satisfactorily proves, that blood may accumulate to a considerable amount in that viscus; and even though coagulation should have taken place, it will, after a time, be redissolved, when it may be drawn off by means of the catheter, or will be discharged by the natural outlet, provided this be pervious.

It may be worth noticing, that in all the cases of ruptured urethra, which are upon record, there was retention of the urine; and in but one, were the surgeons in attendance able to introduce the catheter into the bladder; the nature of the impediment is not, however, distinctly mentioned.

ARTICLE IV.—*An Introductory Lecture to a Course of Clinical Lectures, in the Pennsylvania Hospital, delivered on the 3rd of December*, 1766. By THOMAS BOND, M. D. one of the Physicians to the Hospital.

OUR readers will be much gratified, we think, with the perusal of the following article, which, so far as we know, has never been published. We are indebted for the lecture to Mr. PAUL EVE, Student of Medicine, who obligingly copied it from the Minute-book of the Pennsylvania hospital, where it has been preserved, since the original entry; made in obedience to a vote of the Managers.

This was the first formal clinical lecture delivered in the United States; it is therefore a literary curiosity; and if it possessed no intrinsic interest, would on that account engage the attention of our readers, a majority of whom, probably, have partaken of the benefits of the clinical instructions, which, from that day to this,

have been dispensed in that noble charity. The author enjoyed high distinction in his day, and the essay, we think, will not detract from his admitted claims to the respect of his successors.

We have given the whole of the record on this subject, which commences as follows:

"A letter was received from Dr. THOMAS BOND, in which he proposed to the Managers, they would give liberty and encouragement for the reading of clinical lectures to the students in Physic, on the nature, cause, and cure of diseases; and to put up a meteorological apparatus in the picture room, for observation of the weather, and keeping an exact account of the epidemic diseases thereby caused; and further requests this Board would appoint some suitable day this week, to see the Plan, intended to be proposed by the physicians of the hospital; and next 4th day afternoon at 3 o'clock being proposed, it is left to the Sitting Managers to summon the Board, at that, or other time, as after consulting the physicians they may conclude most convenient."

"On the 26th 11th month, 1766, in pursuance of the summons of the Sitting Managers, all the Managers (except Daniel Roberdeau and John Mease,) met at the house of Dr. THOMAS BOND, together with the following physicians, Dr. THOMAS BOND, Dr. CADWALLADER, Dr. SHIPPEN, Dr. REDMAN, and Dr. EVANS. And Dr. THOMAS BOND read in our presence, an essay on the utility of clinical lectures, and a plan for executing the same for the benefit of the students in physic, and promoting the good purposes of this institution; which is ordered to be inserted on the Minutes of this Board, being as follows:"

"Doctor THOMAS BOND'S *Introductory Lecture to a Course of Clinical Observations in the Pennsylvania Hospital, delivered there the 3rd of December*, 1766."

When I consider the unskilful hands the practice of Physic and Surgery has of necessity been committed to, in many parts of America, it gives me pleasure to behold so many worthy young men, training up in those professions, which, from the nature of their objects, are the most interesting to the community; and yet a greater pleasure in foreseeing, that the unparalleled public spirit of the good people of this province, will shortly make Philadelphia the Athens of America, and render the sons of Pennsylvania reputable amongst the most celebrated Europeans,

in all the liberal arts and sciences:—This I am at present certain of, that, the institutions of literature and charity already founded, and the School of Physic lately opened in this city, afford sufficient foundation for the students of Physic to acquire all the knowledge necessary for the practising every branch of their profession, reputably, and judiciously.

The great expense in going from America to England, and thence from country to country, and college to college, in quest of medical qualifications, is often a bar to the cultivation of the brightest geniuses amongst us, who might otherwise be morning stars in their professions, and most useful members of society. Besides, every climate produces diseases peculiar to itself, which require experience to understand and cure; and even the diseases of the several seasons in the same country, are found to differ so much some years, from what they were in others, that SYDENHAM, the most sagacious physician that ever lived, acknowledges that he was often difficulted, and much mistaken in the treatment of epidemics for some time after their appearance.

No country then can be so proper for the instruction of youth in the knowledge of Physic, as that in which it is to be practised; where the precepts of never failing experience are handed down from father to son, from tutor to pupil.

That this is not a speculative opinion, but real matter of fact, may be proven from the savages of America, who without the assistance of literature, have been found possessed of skill in the cure of diseases incident to their climate, superior to the regular bred and most learned physicians, and that from their discoveries, the present practice of Physic has been enriched with some of the most valuable medicines now in use.

Therefore, from principles of patriotism and humanity, the Physic-school here should meet all the protection and encouragement the friends of their country, and well wishers of mankind, can possibly give it. Though it is yet in its infancy, from the judicious treatment of its guardians it is already become a forward child, and has the promising appearance of soon arriving to a vigorous and healthy maturity. The professors in it at present are few; but their departments include the most essential parts of education: another,* whose distinguished abilities will do honour to his country and the institution, is expected to join them in

* Dr. Kuhn.

spring; and I think he has little faith, who can doubt that so good an undertaking will ever fail of additional strength, and providential blessing. And I am certain nothing would give me so much pleasure, as to have it in my power to contribute the least mite towards its perfect establishment.

The professor of Anatomy and Physiology,* is well qualified for the task; his dissections are accurate and elegant, and his lectures, learned, judicious, and clear.

The professor of the Theory and Practice of Physic,† has had the best opportunities of improvement, joined to genius and application, and cannot fail of giving necessary and instructive lessons to the pupils.

The field this gentleman undertakes is very extensive, and has many difficulties which may mislead the footsteps of an uncautioned traveller; therefore, lectures, in which the different parts of the Theory and Practice of Physic are judiciously classed, and systematically explained, will prevent many perplexities the student would otherwise be embarrassed with, will unfold the doors of knowledge, and be of great use in directing and abridging his future studies; yet there is something further wanting; he must join examples with study, before he can be sufficiently qualified to prescribe for the sick; for, language and books alone, can never give him adequate ideas of diseases, and the best method of treating them. For which reasons, Infirmaries are justly reputed the grand theatres of medical knowledge.

There, the clinical professor comes in to the aid of speculation, and demonstrates the truth of theory, by facts: he meets his pupils at stated times in the hospital, and when a case presents, adapted to his purpose, he asks all those questions which lead to a certain knowledge of the disease, and parts affected; this he does in the most exact and particular manner, to convince the students how many, and what minute circumstances are often necessary to form a judgment of the curative indications, on which the safety and life of the patient depend; from all which circumstances and the present symptoms, he pronounces what the disease is, whether it is curable or incurable, in what manner it ought to be treated, and gives his reasons from authority or experience, for all he says on the occasion; and if the disease baffles the power of art, and

* Dr. Shippen. † Dr. Morgan.

the patient falls a sacrifice to it, he then brings his knowledge to the test, and fixes honour or discredit on his reputation by exposing all the morbid parts to view, and demonstrates by what means it produces death; and if perchance he finds something unexpected, which betrays an error in judgment, he, like a great and good man, immediately acknowledges the mistake, and for the benefit of survivors points out other methods by which it might have been happily treated. The latter part of this field of tuition is the surest method of obtaining just ideas of diseases. The great BOERHAAVE was so attentive to it, that he was not only present at the opening of human bodies, but frequently attended the slaughter houses in Leyden, to examine the carcasses of beasts; and being asked by a learned friend, by what means he acquired such uncommon certainty in the diagnostics and prognostics of diseases, answered, by examining dead bodies, studying SYDENHAM's observations, and BONETUS' Sepulchretum Anatomicum, both which he had read ten times, and each time with greater pleasure and improvement.

But to give you more familiar instances of the utility of this practice, let me remind several of you, who were present last fall at the opening of two bodies, one of which died of asthmatic complaints, the other of a frenzy succeeded by a palsy, and ask you whether any thing short of ocular demonstration, could have given you just ideas of the causes of the patient's death; in one we saw a dropsy in the left side of the thorax, and a curious polypus with its growing fimbriæ of fourteen inches in length, (now in the hospital,) extending from the ventricle of the heart, far beyond the bifurcation of the pulmonary artery; in the other we found the brain partly suppurated, and the ventricle on the opposite side to that affected with paralysis, distended by a large quantity of limpid serum; and you must remember, that the state of all the morbid parts was predicted, before they were exposed to view; which may have a further advantage, by arousing in you an industrious pursuit after the most hidden causes of all the affections of the human body; and convince you what injury they do the living, who oppose a decent, painless, and well timed examination of the dead.

Thus all the professors in the best European colleges, go hand in hand, and co-operate with each other by regular chains of

reasoning and occasional demonstrations, to the satisfaction and improvement of the students.

But more is required of us, in this late settled world, where new diseases often occur, and others common to many parts of Europe visit us too frequently, which it behoves the guardians of health to be very watchful of, that they may know them well, and by an hearty union, and brotherly communication of observations, investigate their causes and check their progress. The task is arduous, but it is a debt we owe to our friends and our country. The atmosphere which surrounds us is fine, and the air we breathe, free, pure, and naturally healthy, and I am fully persuaded we shall find, on strict inquiry, when it becomes otherwise, it is mostly from contagion imported, or neglected sources of putrefaction amongst ourselves, and, therefore, whenever we are able to demonstrate the causes, they may be removed and the effects prevented.

Our fathers, after insuring to us the full enjoyment of the inestimable blessings of religious and civil liberty, have settled us in a country that affords all the real comforts of life, and given us the prospect of becoming one day, a great and happy people; and I know only one objection to a prudent man's giving North America the preference to any other part of the British dominions for the place of his residence, which is, that the climate is sometimes productive of severe epidemic diseases in the summer and fall. The country is otherwise free from those tedious and dangerous fevers which frequently infest most parts of Europe. The last wet summer, and short space of hot dry weather in autumn, caused so many intermittents, from the southern suburbs of this city, all the way to Georgia, that I may venture to assert two-thirds of the inhabitants were not able to do the least business for many weeks, and some families, and even townships, were so distressed, that they had not well persons sufficient to attend the sick, during which time this city was unusually healthy. How respectable, then, would be the characters of those men, who should wipe this stain out of the American escutcheon, and rescue their country from such frequent calamities.

Sufficient encouragement to make the attempt, is found both in history, the books of Physic, and our own experience. Several instances are recorded of places that were so sickly, as to be

shall at present only mention to you further, a few of those methods which have preserved individuals from prevailing diseases.

The inhabitants of Hispaniola have found the wearing flannel shirts to be a preservative against intermittent fevers in that sickly island; and as that disease is known to arise principally from inhaling a great quantity of the humidity of the air, I make no doubt it would also be of use in preventing them in our low, moist, level countries.

We know that the bark of sassafras contains many excellent medicinal virtues: my worthy friend, Mr. Peter Franklin, told me, that he being, in the fall of the year, in the river Nanticoke, in Maryland, and on seeing the people on shore much afflicted with intermittent fevers, advised the mariners of the ship to drink freely, by way of prevention, of that aromatic and antiseptic medicine, but could not prevail on more than half the company to do it, and that he and all the others who took it, enjoyed perfect health, whilst not a single person of the rest escaped a severe attack of the epidemic disease: I have known other similar instances, which it is needless to mention, since this is remarkably pertinent.

But I have reason to expect that a more agreeable and equally certain preventative against our autumnal fevers, will be found in sulphurous chalybeate waters, which may be readily procured in most parts of America, especially where those diseases are most prevalent: a spring of this kind at Gloucester, within a few miles of this place, has been much used of late; has been so very serviceable to invalids, it has the appearance of being a valuable conveniency to the city. Persons under various diseases took lodgings in the village last season, for the advantage of drinking the waters at the fountain head, and though the fall was more sickly than has been known in the memory of man, not any one of the inhabitants near the Spaw, who drank it freely, had a touch of the prevailing disease; whilst the major part of those that did not, had more the appearance of ghosts, than living creatures. There were two houses, the habitations of father and son, within twenty feet of each other; the family of the father had suffered greatly from intermittent fevers the preceding fall, and some of them continued invalids till the middle of summer, when they were prevailed on to take the waters, after which they daily recovered

health, bloom and vigour, and passed the sickly season without a complaint; whilst scarcely a person in that of the son, who did not take them, escaped a severe illness. It is well known from experience, that mineral waters are not only the most palatable, but the most salutary parts of the materia medica; and that the effect of those which are pure and properly impregnated with chalybeate principles, strengthen digestion, brace and counteract the summer's sun, dilute a thick putrid bile, (the instrument of mischief in all hot climates,) and immediately wash away putrefaction through the emunctories of the bowels, skin, or kidneys, and therefore appear to be natural preservatives against the effect of a hot, moist, and putrid atmosphere. Whether these waters will answer my sanguine expectations or not, must be left to the decision of time; if they should be found wanting, that ought not discourage our further pursuit; for since Providence has furnished every country with defences for the human body, against the inclemencies of heat and cold, why should we question whether Infinite Wisdom and Goodness has made equal provision against all other natural injuries of our constitution? Experience and reason encourage us to believe it has, and that the means might be discovered by diligent investigation, were our researches equal to the task. The above instances are therefore related to convince you, that the prevention of some of the epidemic diseases of America is not only a laudable and rational pursuit, but is more within the limits of human precaution than has generally been imagined; and to excite your particular attention to the improvement of this humane and interesting part of your profession, in which, and all other useful undertakings, I most sincerely wish you success.

I am now to inform you, gentlemen, that the managers and physicians of the Pennsylvania Hospital, on seeing the great number of you attending the school of Physic in this city, are of opinion, this excellent institution likewise affords a favourable opportunity of further improvement to you in the practical part of your profession; and being desirous it should answer all the good purposes intended by the generous contributors to it, have allotted to me the task of giving a course of clinical and meteorological observations in it, which I cheerfully undertake, (though the season of my life points out relaxation and retirement, rather

than new incumbrances,) in hopes that remarks on the many curious cases that must daily occur, amongst an hundred and thirty sick persons, collected together at one time, may be very instructive to you, I therefore purpose to meet you at stated times here, and give you the best information in my power of the nature and treatment of chronical diseases, and of the proper management of ulcers, wounds, and fractures. I shall show you all the operations of surgery, and endeavour, from the experience of thirty years, to introduce you to a familiar acquaintance with the acute diseases of your own country; in order to which, I shall put up a complete meteorological apparatus, and endeavour to inform you of all the known properties of the atmosphere which surrounds us, and the effects its frequent variations produce on animal bodies; and confirm the doctrine, by an exact register of the weather, and of the prevailing diseases, both here and in the neighbouring provinces; to which I shall add all the interesting observations which may occur in private practice, and sincerely wish it may be in my power to do them to your satisfaction.

I have likewise the pleasure to inform you, that Dr. SMITH* has promised to go through a course of experimental philosophy in the college, for your instruction in Pneumatics, Hydraulics, and Mechanics, which will be of the greatest advantage to a ready comprehension of the meteorological lectures, and other parts of your Medical studies, and lay you under the highest obligations to that learned professor.

"Which, being considered, and the proposal unanimously approved, it is agreed—

That a meteorological apparatus may be fixed in the room where the anatomical paintings and casts are deposited, and it is recommended to the doctors, to employ some skilful and careful person to take down observations on the state of the air and weather, and duly to register the same.

And in as much as the exhibiting these lectures judiciously performed, is allowed will be an additional improvement, for the benefit of the students of Physic, it is agreed, that each student attending them (except such who are subject to the payment of the six pistoles heretofore agreed to be paid for their attending

* The Provost.

the wards,) shall pay to the Sitting Managers, or Treasurer, one guinea per annum, for the privilege of attending them, and the money arising from thence, shall be applied towards establishing and promoting the Medical Library.

Resolved,

That the Matron have particular directions, that bodies of the patients who die, should be taken into the upper hall, to be laid out in a suitable apartment there, to be provided for that purpose.

Also, Resolved,

That when the physicians shall conclude it necessary to open the bodies of any of the dead, that they previously consult the Sitting Managers, and obtain their consent."

ARTICLE V.—*Some Observations on Extra-Uterine Pregnancy.* By THOMAS C. JAMES, M. D., Professor of Midwifery in the University of Pennsylvania. Read before the College of Physicians Aug. 7, 1827.

IN this paper we propose giving a hasty sketch of what have been called *extra-uterine conceptions*, or what might, perhaps, with more propriety be termed extra-uterine pregnancies—as conception in the first instance may always be considered as taking place in the ovaria, and hence, extra-uterine or without the uterus.

A great number of facts have proved that the uterus is not the only place in which the fœtus may be formed and developed, as is demonstrated by those fœtuses which have been occasionally found in the proper abdominal cavity, in the fallopian tubes, and were increased to a considerable size in the ovaria themselves.

A fourth species of extra-uterine pregnancy has been lately noticed by Dr. BRESCHET of Paris, under the term of "*Graviditas in Uteri Substantia.*"

In this case the fœtus is found enclosed in the parenchyma of the uterus itself, excepting that a particular cyst separates it from the substance of that viscus.

In such instances it may be supposed that the ovum had insinuated itself, in its descent, into the orifice of one of the vascular sinuses that (according to anatomists) are to be found at the

inferior part of the fallopian tubes, where it may have formed a cavity for itself by simple dilatation; or perhaps, as has been suggested, may have been impeded in that portion of the cavity of the fallopian tube itself which passes through the substance of the uterus.

If conceptions take place in the ovarium, as we shall suppose with HALLER, we cannot be surprised at these varieties of pregnancy—indeed we might wonder that they did not occur more frequently, as the fallopian tube, in this view of the subject, may only be considered as the canal destined to convey the ovum into the uterus—and since the uterine orifice of the tube is extremely small—whilst the extremity which is applied to the ovary is very large, comparatively speaking.

The manner in which the fœtus is nourished when it is retained in the ovary or the fallopian tube, does not differ essentially from the mode of nutrition of that which is received into the uterus. In extra-uterine pregnancy, as in that which is natural, there is a particular irritation established, which determines to the part to which it forms adhesions, an afflux of a greater quantity of fluids; and from the surface of the ovum *flocci* probably arise which adhere to the adjacent parts; frequently, those organs cannot furnish nutriment as readily and in as great quantity, because the parts to which the ovum adheres, are supplied with but a small number of vessels, whose diameters are still smaller. Hence, as experience proves, the fœtuses developed in these extraordinary ways are in general extremely diminutive and feeble.

Instances of fallopian pregnancies, if we may be allowed the term, are not very rare. Those of the ovary are more uncommon. Nevertheless, well attested cases of their occurrence are to be met with, and a singular instance is recorded by Dr. GRANVILLE in the Philosophical Transactions for 1820, accompanied by two highly finished engravings, in which the fœtus appears to have reached the size that it generally has at the fourth month, and appeared perfect in all its parts: the placenta was formed, although of a smaller size than natural at that period. The uterus had also increased in size to that of the fourth month, but contained no decidua.

Whatever tends to prevent the passage of the ovum from the ovary into the fallopian tube, or from the tube into the uterus,

may give occasion to what has been termed an extra-uterine conception, or more properly, extra-uterine pregnancy. It has been proved, by actual anatomical examination, that the mal-conformation of the fallopian tubes, and of the ovaria, has often been the cause of the preternatural affections alluded to.

Writers on this subject assert, that the signs or symptoms of extra-uterine pregnancy, are often to a certain degree similar to those of real or genuine pregnancy; and if in some instances a peculiar symptom has occurred, the circumstance of its not being constantly met with proves it to be equivocal, and insufficient to demonstrate satisfactorily that the fœtus has not only been conceived but also developed without the uterus. The impossibility of always detecting pregnancy with certainty, by the mere external symptoms, in its early period, sufficiently intimates that it would be equally difficult to distinguish extra-uterine pregnancy.

It is true that PETIT, a celebrated surgeon and accoucheur in Paris, has laid down a number of symptoms, by which it may, as he supposed, be distinguished; but as they have all been proved to be fallacious, it will not be considered as necessary to enumerate them here.

We may nevertheless observe, that ovarian and tubal pregnancies are not unfrequently attended by many irregular, painful, and distressing complaints, and may be distinguishable from uterine pregnancies by these complaints continuing to increase in violence in proportion as the pregnancy advances, owing to the violent and preternatural distention of the narrow space in which the ovum is unhappily located, and from the irregular compression exercised on the abdominal viscera; whereas, in uterine pregnancies, many of the disagreeable symptoms originating in compression are relieved after the fourth month by quickening or the rising of the uterus out of the cavity of the pelvis.

In the cases of extra-uterine pregnancy which have fallen under my notice, the distention of the abdomen, or what might be termed the *abdominal tumour*, has commenced rather towards one or other of the iliac regions; and a greater degree of pain has been experienced than is usual in genuine pregnancy; more especially until after the period of quickening, as has just been observed: this was very remarkably illustrated in the case of Mrs. P. as detailed by Dr. OTTO.

in all the liberal arts and sciences:—This I am at present certain of, that, the institutions of literature and charity already founded, and the School of Physic lately opened in this city, afford sufficient foundation for the students of Physic to acquire all the knowledge necessary for the practising every branch of their profession, reputably, and judiciously.

The great expense in going from America to England, and thence from country to country, and college to college, in quest of medical qualifications, is often a bar to the cultivation of the brightest geniuses amongst us, who might otherwise be morning stars in their professions, and most useful members of society. Besides, every climate produces diseases peculiar to itself, which require experience to understand and cure; and even the diseases of the several seasons in the same country, are found to differ so much some years, from what they were in others, that SYDENHAM, the most sagacious physician that ever lived, acknowledges that he was often difficulted, and much mistaken in the treatment of epidemics for some time after their appearance.

No country then can be so proper for the instruction of youth in the knowledge of Physic, as that in which it is to be practised; where the precepts of never failing experience are handed down from father to son, from tutor to pupil.

That this is not a speculative opinion, but real matter of fact, may be proven from the savages of America, who without the assistance of literature, have been found possessed of skill in the cure of diseases incident to their climate, superior to the regular bred and most learned physicians, and that from their discoveries, the present practice of Physic has been enriched with some of the most valuable medicines now in use.

Therefore, from principles of patriotism and humanity, the Physic-school here should meet all the protection and encouragement the friends of their country, and well wishers of mankind, can possibly give it. Though it is yet in its infancy, from the judicious treatment of its guardians it is already become a forward child, and has the promising appearance of soon arriving to a vigorous and healthy maturity. The professors in it at present are few; but their departments include the most essential parts of education: another,* whose distinguished abilities will do honour to his country and the institution, is expected to join them in

* Dr. Kuhn.

spring; and I think he has little faith, who can doubt that so good an undertaking will ever fail of additional strength, and providential blessing. And I am certain nothing would give me so much pleasure, as to have it in my power to contribute the least mite towards its perfect establishment.

The professor of Anatomy and Physiology,* is well qualified for the task; his dissections are accurate and elegant, and his lectures, learned, judicious, and clear.

The professor of the Theory and Practice of Physic,† has had the best opportunities of improvement, joined to genius and application, and cannot fail of giving necessary and instructive lessons to the pupils.

The field this gentleman undertakes is very extensive, and has many difficulties which may mislead the footsteps of an uncautioned traveller; therefore, lectures, in which the different parts of the Theory and Practice of Physic are judiciously classed, and systematically explained, will prevent many perplexities the student would otherwise be embarrassed with, will unfold the doors of knowledge, and be of great use in directing and abridging his future studies; yet there is something further wanting; he must join examples with study, before he can be sufficiently qualified to prescribe for the sick; for, language and books alone, can never give him adequate ideas of diseases, and the best method of treating them. For which reasons, Infirmaries are justly reputed the grand theatres of medical knowledge.

There, the clinical professor comes in to the aid of speculation, and demonstrates the truth of theory, by facts: he meets his pupils at stated times in the hospital, and when a case presents, adapted to his purpose, he asks all those questions which lead to a certain knowledge of the disease, and parts affected; this he does in the most exact and particular manner, to convince the students how many, and what minute circumstances are often necessary to form a judgment of the curative indications, on which the safety and life of the patient depend; from all which circumstances and the present symptoms, he pronounces what the disease is, whether it is curable or incurable, in what manner it ought to be treated, and gives his reasons from authority or experience, for all he says on the occasion; and if the disease baffles the power of art, and

* Dr. Shippen. † Dr. Morgan.

the patient falls a sacrifice to it, he then brings his knowledge to the test, and fixes honour or discredit on his reputation by exposing all the morbid parts to view, and demonstrates by what means it produces death; and if perchance he finds something unexpected, which betrays an error in judgment, he, like a great and good man, immediately acknowledges the mistake, and for the benefit of survivors points out other methods by which it might have been happily treated. The latter part of this field of tuition is the surest method of obtaining just ideas of diseases. The great BOERHAAVE was so attentive to it, that he was not only present at the opening of human bodies, but frequently attended the slaughter houses in Leyden, to examine the carcasses of beasts; and being asked by a learned friend, by what means he acquired such uncommon certainty in the diagnostics and prognostics of diseases, answered, by examining dead bodies, studying SYDENHAM's observations, and BONETUS' Sepulchretum Anatomicum, both which he had read ten times, and each time with greater pleasure and improvement.

But to give you more familiar instances of the utility of this practice, let me remind several of you, who were present last fall at the opening of two bodies, one of which died of asthmatic complaints, the other of a frenzy succeeded by a palsy, and ask you whether any thing short of ocular demonstration, could have given you just ideas of the causes of the patient's death; in one we saw a dropsy in the left side of the thorax, and a curious polypus with its growing fimbriæ of fourteen inches in length, (now in the hospital,) extending from the ventricle of the heart, far beyond the bifurcation of the pulmonary artery; in the other we found the brain partly suppurated, and the ventricle on the opposite side to that affected with paralysis, distended by a large quantity of limpid serum; and you must remember, that the state of all the morbid parts was predicted, before they were exposed to view; which may have a further advantage, by arousing in you an industrious pursuit after the most hidden causes of all the affections of the human body; and convince you what injury they do the living, who oppose a decent, painless, and well timed examination of the dead.

Thus all the professors in the best European colleges, go hand in hand, and co-operate with each other by regular chains of

reasoning and occasional demonstrations, to the satisfaction and improvement of the students.

But more is required of us, in this late settled world, where new diseases often occur, and others common to many parts of Europe visit us too frequently, which it behoves the guardians of health to be very watchful of, that they may know them well, and by an hearty union, and brotherly communication of observations, investigate their causes and check their progress. The task is arduous, but it is a debt we owe to our friends and our country. The atmosphere which surrounds us is fine, and the air we breathe, free, pure, and naturally healthy, and I am fully persuaded we shall find, on strict inquiry, when it becomes otherwise, it is mostly from contagion imported, or neglected sources of putrefaction amongst ourselves, and, therefore, whenever we are able to demonstrate the causes, they may be removed and the effects prevented.

Our fathers, after insuring to us the full enjoyment of the inestimable blessings of religious and civil liberty, have settled us in a country that affords all the real comforts of life, and given us the prospect of becoming one day, a great and happy people; and I know only one objection to a prudent man's giving North America the preference to any other part of the British dominions for the place of his residence, which is, that the climate is sometimes productive of severe epidemic diseases in the summer and fall. The country is otherwise free from those tedious and dangerous fevers which frequently infest most parts of Europe. The last wet summer, and short space of hot dry weather in autumn, caused so many intermittents, from the southern suburbs of this city, all the way to Georgia, that I may venture to assert two-thirds of the inhabitants were not able to do the least business for many weeks, and some families, and even townships, were so distressed, that they had not well persons sufficient to attend the sick, during which time this city was unusually healthy. How respectable, then, would be the characters of those men, who should wipe this stain out of the American escutcheon, and rescue their country from such frequent calamities.

Sufficient encouragement to make the attempt, is found both in history, the books of Physic, and our own experience. Several instances are recorded of places that were so sickly, as to be

uninhabited, until princes have ordered their physicians to search into the causes of their unhealthiness; and having discovered and removed them, made thereby valuable additions to their kingdoms. Was not our ancient and great master, HIPPOCRATES, so knowing in the cause of pestilential contagion, as to foresee an approaching plague, and send his pupils into the cities to take care of the sick! and has not HE, and SYDENHAM, the English Hippocrates, done infinite service to the healing art, and gained immortal honours to themselves, by their essays on epidemics, in which they not only accurately describe the diseases of their respective countries, but show the depraved constitution of the air, which produced each of them? Our own experience also affords much encouragement: when I first came into this city, the Dock was the common sewer of filth, and was such a nuisance to the inhabitants about it, that they were obliged to use more pounds of bark, than they have ounces since it has been raised and levelled. Another striking instance of the advantage of cleanliness for the preservation of health, affords me an opportunity of paying a tribute, justly due, to the wisdom of the legislature of this province, in framing the salutary laws for paving and regulating the streets of this city, and to the indefatigable industry and skill of the commissioners in executing them; whereby they have contributed so much to the healthiness of the inhabitants, that I am confident the whole expense will be repaired in ten years, by the lessening of the physic bills alone.

A farm within a few miles of this city was remarkably healthy for fifty years, whilst the tide overflowed the lowlands, near the dwelling house; but after they were banked in by ditches so ill contrived that they did not often discharge the water that fell into them for a considerable time, and until it became putrid, and thereby rendered the place as remarkably sickly as it had been before healthy, I was told by a gentleman of veracity, that he saw the corpses of nine tenants, that had been carried from it in a few years.

The yellow fever, which I take to be exactly the same distemper as the plague of Athens, described by THUCYDIDES, has been five different times in this city since my residence in it; the causes of three of them I was luckily able to trace, and am certain they were the same which produced a gaol fever in other places, and

am of opinion the difference betwixt the appearance of these fevers, arises from the climate, and the different state the bodies are in when they imbibe the contagion; if so, the same methods which are taken to prevent a gaol fever, will equally prevent a yellow fever: it was in the year forty-one I first saw that horrid disease, which was then imported by a number of convicts from the Dublin gaol. The second time it prevailed, it was indigenous, from evident causes, and was principally confined to one square of the city. The third time, it was generated on board of crowded ships in the port, which brought in their passengers, in health, but soon after became very sickly. I here saw the appearance of contagion like a dim spark, which gradually increased to a blaze, and soon after burst into a terrible flame, carrying devastation with it; and after continuing two months, was extinguished by the profuse sweats of tertian fevers; but this is not the ordinary course of the contagion, it is usually checked by the cool evenings in September, and dies on the appearance of an October frost.

I lately visited an Irish passenger vessel, which brought the people perfectly healthy until they came in our river; I found five of them ill, and others unwell, and saw that the *fomes of* infection was spreading among them; I therefore ordered the ship to lay quarantine, to be well purified with the steams of sulphur, and with vinegar; directed the bedding and clothing of the people to be well washed and dried, before any person should be permitted to land out of her; after which, I advised separating the sick from the healthy. This was done by puttting twelve in different rooms in one house, and fourteen in another, out of the city; the conveniences of the two houses were much the same; in one of them little care was taken of the sick, who were laid upon the same foul beds, they (contrary to orders) brought to shore with them: the consequence was, that all the family catched the distemper, and the landlord died. In the other, my directions were strictly observed; the sick had clean clothes and clean bedding, were well attended, and soon recovered, without doing the least injury to any person that visited them; which confirms observations I had made before, that the contagion of malignant fevers lies in the air, confined and corrupted, by neglect of rags and other filth about the helpless sick, and not from their bodies.

As these heads shall be the subject of a future lecture, I

shall at present only mention to you further, a few of those methods which have preserved individuals from prevailing diseases.

The inhabitants of Hispaniola have found the wearing flannel shirts to be a preservative against intermittent fevers in that sickly island; and as that disease is known to arise principally from inhaling a great quantity of the humidity of the air, I make no doubt it would also be of use in preventing them in our low, moist, level countries.

We know that the bark of sassafras contains many excellent medicinal virtues: my worthy friend, Mr. PETER FRANKLIN, told me, that he being, in the fall of the year, in the river Nanticoke, in Maryland, and on seeing the people on shore much afflicted with intermittent fevers, advised the mariners of the ship to drink freely, by way of prevention, of that aromatic and antiseptic medicine, but could not prevail on more than half the company to do it, and that he and all the others who took it, enjoyed perfect health, whilst not a single person of the rest escaped a severe attack of the epidemic disease: I have known other similar instances, which it is needless to mention, since this is remarkably pertinent.

But I have reason to expect that a more agreeable and equally certain preventative against our autumnal fevers, will be found in sulphurous chalybeate waters, which may be readily procured in most parts of America, especially where those diseases are most prevalent: a spring of this kind at Gloucester, within a few miles of this place, has been much used of late; has been so very serviceable to invalids, it has the appearance of being a valuable conveniency to the city. Persons under various diseases took lodgings in the village last season, for the advantage of drinking the waters at the fountain head, and though the fall was more sickly than has been known in the memory of man, not any one of the inhabitants near the Spaw, who drank it freely, had a touch of the prevailing disease; whilst the major part of those that did not, had more the appearance of ghosts, than living creatures. There were two houses, the habitations of father and son, within twenty feet of each other; the family of the father had suffered greatly from intermittent fevers the preceding fall, and some of them continued invalids till the middle of summer, when they were prevailed on to take the waters, after which they daily recovered

health, bloom and vigour, and passed the sickly season without a complaint; whilst scarcely a person in that of the son, who did not take them, escaped a severe illness. It is well known from experience, that mineral waters are not only the most palatable, but the most salutary parts of the materia medica; and that the effect of those which are pure and properly impregnated with chalybeate principles, strengthen digestion, brace and counteract the summer's sun, dilute a thick putrid bile, (the instrument of mischief in all hot climates,) and immediately wash away putrefaction through the emunctories of the bowels, skin, or kidneys, and therefore appear to be natural preservatives against the effect of a hot, moist, and putrid atmosphere. Whether these waters will answer my sanguine expectations or not, must be left to the decision of time; if they should be found wanting, that ought not discourage our further pursuit; for since Providence has furnished every country with defences for the human body, against the inclemencies of heat and cold, why should we question whether Infinite Wisdom and Goodness has made equal provision against all other natural injuries of our constitution? Experience and reason encourage us to believe it has, and that the means might be discovered by diligent investigation, were our researches equal to the task. The above instances are therefore related to convince you, that the prevention of some of the epidemic diseases of America is not only a laudable and rational pursuit, but is more within the limits of human precaution than has generally been imagined; and to excite your particular attention to the improvement of this humane and interesting part of your profession, in which, and all other useful undertakings, I most sincerely wish you success.

I am now to inform you, gentlemen, that the managers and physicians of the Pennsylvania Hospital, on seeing the great number of you attending the school of Physic in this city, are of opinion, this excellent institution likewise affords a favourable opportunity of further improvement to you in the practical part of your profession; and being desirous it should answer all the good purposes intended by the generous contributors to it, have allotted to me the task of giving a course of clinical and meteorological observations in it, which I cheerfully undertake, (though the season of my life points out relaxation and retirement, rather

than new incumbrances,) in hopes that remarks on the many curious cases that must daily occur, amongst an hundred and thirty sick persons, collected together at one time, may be very instructive to you, I therefore purpose to meet you at stated times here, and give you the best information in my power of the nature and treatment of chronical diseases, and of the proper management of ulcers, wounds, and fractures. I shall show you all the operations of surgery, and endeavour, from the experience of thirty years, to introduce you to a familiar acquaintance with the acute diseases of your own country; in order to which, I shall put up a complete meteorological apparatus, and endeavour to inform you of all the known properties of the atmosphere which surrounds us, and the effects its frequent variations produce on animal bodies; and confirm the doctrine, by an exact register of the weather, and of the prevailing diseases, both here and in the neighbouring provinces; to which I shall add all the interesting observations which may occur in private practice, and sincerely wish it may be in my power to do them to your satisfaction.

I have likewise the pleasure to inform you, that Dr. SMITH* has promised to go through a course of experimental philosophy in the college, for your instruction in Pneumatics, Hydraulics, and Mechanics, which will be of the greatest advantage to a ready comprehension of the meteorological lectures, and other parts of your Medical studies, and lay you under the highest obligations to that learned professor.

"Which, being considered, and the proposal unanimously approved, it is agreed—

That a meteorological apparatus may be fixed in the room where the anatomical paintings and casts are deposited, and it is recommended to the doctors, to employ some skilful and careful person to take down observations on the state of the air and weather, and duly to register the same.

And in as much as the exhibiting these lectures judiciously performed, is allowed will be an additional improvement, for the benefit of the students of Physic, it is agreed, that each student attending them (except such who are subject to the payment of the six pistoles heretofore agreed to be paid for their attending

* The Provost.

the wards,) shall pay to the Sitting Managers, or Treasurer, one guinea per annum, for the privilege of attending them, and the money arising from thence, shall be applied towards establishing and promoting the Medical Library.

Resolved,

That the Matron have particular directions, that bodies of the patients who die, should be taken into the upper hall, to be laid out in a suitable apartment there, to be provided for that purpose.

Also, Resolved,

That when the physicians shall conclude it necessary to open the bodies of any of the dead, that they previously consult the Sitting Managers, and obtain their consent."

ARTICLE V.—*Some Observations on Extra-Uterine Pregnancy.* By THOMAS C. JAMES, M. D., Professor of Midwifery in the Univerversity of Pennsylvania. Read before the College of Physicians Aug. 7, 1827.

IN this paper we propose giving a hasty sketch of what have been called *extra-uterine conceptions*, or what might, perhaps, with more propriety be termed extra-uterine pregnancies—as conception in the first instance may always be considered as taking place in the ovaria, and hence, extra-uterine or without the uterus.

A great number of facts have proved that the uterus is not the only place in which the fœtus may be formed and developed, as is demonstrated by those fœtuses which have been occasionally found in the proper abdominal cavity, in the fallopian tubes, and were increased to a considerable size in the ovaria themselves.

A fourth species of extra-uterine pregnancy has been lately noticed by Dr. BRESCHET of Paris, under the term of "*Graviditas in Uteri Substantia.*"

In this case the fœtus is found enclosed in the parenchyma of the uterus itself, excepting that a particular cyst separates it from the substance of that viscus.

In such instances it may be supposed that the ovum had insinuated itself, in its descent, into the orifice of one of the vascular sinuses that (according to anatomists) are to be found at the

inferior part of the fallopian tubes, where it may have formed a cavity for itself by simple dilatation; or perhaps, as has been suggested, may have been impeded in that portion of the cavity of the fallopian tube itself which passes through the substance of the uterus.

If conceptions take place in the ovarium, as we shall suppose with HALLER, we cannot be surprised at these varieties of pregnancy—indeed we might wonder that they did not occur more frequently, as the fallopian tube, in this view of the subject, may only be considered as the canal destined to convey the ovum into the uterus—and since the uterine orifice of the tube is extremely small—whilst the extremity which is applied to the ovary is very large, comparatively speaking.

The manner in which the fœtus is nourished when it is retained in the ovary or the fallopian tube, does not differ essentially from the mode of nutrition of that which is received into the uterus. In extra-uterine pregnancy, as in that which is natural, there is a particular irritation established, which determines to the part to which it forms adhesions, an afflux of a greater quantity of fluids; and from the surface of the ovum *flocci* probably arise which adhere to the adjacent parts; frequently, those organs cannot furnish nutriment as readily and in as great quantity, because the parts to which the ovum adheres, are supplied with but a small number of vessels, whose diameters are still smaller. Hence, as experience proves, the fœtuses developed in these extraordinary ways are in general extremely diminutive and feeble.

Instances of fallopian pregnancies, if we may be allowed the term, are not very rare. Those of the ovary are more uncommon. Nevertheless, well attested cases of their occurrence are to be met with, and a singular instance is recorded by Dr. GRANVILLE in the Philosophical Transactions for 1820, accompanied by two highly finished engravings, in which the fœtus appears to have reached the size that it generally has at the fourth month, and appeared perfect in all its parts: the placenta was formed, although of a smaller size than natural at that period. The uterus had also increased in size to that of the fourth month, but contained no decidua.

Whatever tends to prevent the passage of the ovum from the ovary into the fallopian tube, or from the tube into the uterus,

may give occasion to what has been termed an extra-uterine conception, or more properly, extra-uterine pregnancy. It has been proved, by actual anatomical examination, that the mal-conformation of the fallopian tubes, and of the ovaria, has often been the cause of the preternatural affections alluded to.

Writers on this subject assert, that the signs or symptoms of extra-uterine pregnancy, are often to a certain degree similar to those of real or genuine pregnancy; and if in some instances a peculiar symptom has occurred, the circumstance of its not being constantly met with proves it to be equivocal, and insufficient to demonstrate satisfactorily that the fœtus has not only been conceived but also developed without the uterus. The impossibility of always detecting pregnancy with certainty, by the mere external symptoms, in its early period, sufficiently intimates that it would be equally difficult to distinguish extra-uterine pregnancy.

It is true that PETIT, a celebrated surgeon and accoucheur in Paris, has laid down a number of symptoms, by which it may, as he supposed, be distinguished; but as they have all been proved to be fallacious, it will not be considered as necessary to enumerate them here.

We may nevertheless observe, that ovarian and tubal pregnancies are not unfrequently attended by many irregular, painful, and distressing complaints, and may be distinguishable from uterine pregnancies by these complaints continuing to increase in violence in proportion as the pregnancy advances, owing to the violent and preternatural distention of the narrow space in which the ovum is unhappily located, and from the irregular compression exercised on the abdominal viscera; whereas, in uterine pregnancies, many of the disagreeable symptoms originating in compression are relieved after the fourth month by quickening or the rising of the uterus out of the cavity of the pelvis.

In the cases of extra-uterine pregnancy which have fallen under my notice, the distention of the abdomen, or what might be termed the *abdominal tumour*, has commenced rather towards one or other of the iliac regions; and a greater degree of pain has been experienced than is usual in genuine pregnancy; more especially until after the period of quickening, as has just been observed: this was very remarkably illustrated in the case of Mrs. P. as detailed by Dr. OTTO.

The symptoms indeed are extremely different in different patients, which in part depend upon the peculiar constitution of the individual, but more especially upon the nature of the organs affected.

It has been asserted, that it is by the examination *per vaginam* alone that we satisfactorily ascertain that the fœtus is extra-uterine, or without the cavity of the uterus; and that, although pregnancy should be considerably advanced, and even efforts to expel the fœtus should have taken place, the uterus will be found not to be much increased in size, that its neck will have suffered no alteration; but that it is equally long, hard, and thick, as in the unimpregnated state.

But this opinion so generally admitted is to be received with some caution, as several exceptions to the rule have occurred. For in some cases in which the fœtus has been contained in the fallopian tubes, or the ovaria, we are told that the uterus has been found enlarged, and the cervix dilated during the period of the pains, although the viscus itself was empty. A case to this effect is recited by BERTRANDI, and Dr. FOART SIMMONS relates that in dissecting a woman, in whom the fœtus, placenta, and membranes, had been retained in one of the fallopian tubes, the uterus was found enlarged in the same proportion as it would have been had the pregnancy been perfectly natural. LEVRET and TURNBULL also give us similar cases.

A very interesting case of extra-uterine, fallopian pregnancy, ending fatally, is related by T. BLIZARD, Esq. in the 5th volume of the Transactions of the Royal Society of Edinburgh. The female had been previously pregnant six times, and had miscarried but five weeks before her death. After considerable fatigue, she was seized with violent pain in the lower part of the abdomen, at about half past 11 in the morning, and died at 9 o'clock in the evening. After death, two quarts of blood, partly coagulated, were taken from the abdominal cavity, which appeared to have issued from a rupture, of the size of a small quill, in the pouch formed in the fallopian tube at the left side, about half way between its fimbriated extremity and the uterus, and which was about the size of a pigeon's egg. The ovum, which, by distention of the tube, the process of extra-uterine gestation going on, had occasioned this pouch, had probably been impeded in its passage to the uterus

by some irregular contraction of the tube, as quicksilver passed readily from the uterus to the pouch, which proved that there was no permanent cause of obstruction.

The uterus was twice the natural size of its unimpregnated state, and a quantity of gelatinous substance extended through its cervix to the vagina. The pouch contained a membranous circle of the size of a scarlet bean, and within, another membrane, possibly chorion and amnion, but no fœtus was perceptible.

In the very interesting case related by Dr. JOHN CLARKE, (in 1st volume of the Medical and Chirurgical Transactions,) where the fœtus was detained in the fallopian tube, and death was occasioned by the hæmorrhage following its rupture, although the woman was but seven weeks advanced in pregnancy, yet the uterus was proportionably enlarged, the membrana decidua was formed in its cavity, and the usual mucus of pregnancy was secreted in its cervix.

The case heretofore cited from Dr. GRANVILLE goes to the establishment of the same fact, for the uterus had increased to the size it generally assumes at the end of the fourth month of actual utero-gestation.

It has been observed by the very experienced Dr. GARTHSHORE, that conceptions in the *ovaria* or *fallopian tubes* will always be confined to the lower region of the abdomen, and the swelling will always begin on one side, and must constantly be attended with severe and increasing pain, which is said to be more acute when the conception is in the ovarium, than when it is in the tube. In these cases the menses are obstructed, and the milk secreted as in the case of uterine pregnancy.

In pure ventral cases, the menstrua, we are assured, are not obstructed, but will rather appear at regular periods, as in the unimpregnated state. The stomach is not so apt to be affected with sickness or vomiting in the early stages, neither are the breasts excited by the natural sympathy to secrete milk.

Extra-uterine pregnancy is always to be considered as extremely dangerous as it regards the mother. CHAMBON, a celebrated French physician, who has written very fully on the diseases of women, supposes that this danger may be diminished by the rupture of the membranes, or the sac in which the embryo is contained, by employing blood-letting, and a regimen calculated to

diminish its enlargement, and facilitate its rupture. But the debility of the woman which would be the necessary consequence of these repeated bleedings, and a low diet, could have but a small effect in diminishing the size of the fœtus, so as to preserve the life of the mother. Besides, in the cases just alluded to from Mr. Blizard and Dr. Clarke, the woman died from the rupture of the fallopian tube, when the whole ovum contained in it was not so large as a walnut; also, the rupture of the sac, most frequently takes place before we have ascertained the woman's pregnancy, if the embryo is contained in the tubes or the ovaries. It has been observed, that it is generally about the fourth month that the sac which contains the fœtus is ruptured, and before the existence of pregnancy is manifested by its motion.

The following symptoms accompanied the rupture of the sac, in the two cases related by Sabatier, where it occurred towards the end of the fourth month. The women suffered acute pains during two or three hours; after an interval of ease which succeeded a still more severe pain, they perceived a gentle heat to spread within the abdomen which immediately subsided; the countenance became pale; the pulse gradually ceased; the whole body was covered with a cold sweat, which was quickly succeeded by death: the succession of symptoms was so rapid that it was impossible to administer any relief. The opening and examination of their bodies proved that their death was occasioned by the considerable quantity of blood that had been poured out by the ruptured vessels.

In the case related by Dr. Clarke, where the rupture took place at the end of the seventh week after conception, the patient continued ill for three days before she expired; but in other respects the ultimate symptoms and appearances were similar.

In a number of recorded cases of extra-uterine pregnancy, it has been observed that at the period of eight, nine, or even ten months from the commencement of gestation, the symptoms of labour have actually occurred, the pain being very distressing; and a sanguineous discharge has taken place from the vagina and uterus—all which appearances gradually subside without the expulsion of the fœtus.

It is not improbable, that some of these cases were not, in the first instance, actually extra-uterine, but rather retroversions of

the uterus with the fœtus contained in its cavity, (as explained by MERRIMAN,) until near the full period of utero-gestation, when the uterus has been ruptured and the fœtus expelled into the abdominal cavity—producing the attendant symptoms.*

In those cases where the fœtus has been found imbedded in the substance of the uterus itself, (*graviditas in uteri substantia*,) it has been observed that at a period not accurately determined, a rupture takes place, accompanied with an effusion of blood into the abdomen, death following as the quick and inevitable consequence.†

There are other terminations which are more favourable for the mother, but which also are more uncommon. Sometimes the fœtus dies before the rupture of the sac; sometimes it dries away, if I may so express it, and sometimes it putrefies. When the fœtus contracts and dries up after its death, there have been instances of women carrying it for many years, as twenty-five, thirty, forty-six, and fifty, and in a case related by Dr. CHESTON, even fifty-two years, without suffering any very great inconvenience from it, except from the sensation of weight.

A case has occurred in this city, in which the fœtus remained eighteen years in the cavity of the abdomen—the patient having been treated as labouring under dropsy;—and in this instance, at the end of nine months from conception, the pains of labour were experienced, and the accoucheur (the late Dr. DUNLAP) sent for, who continued in attendance for some days; but to no purpose as it regarded expulsion of the fœtus. The preparation is now in the possession of a member of the college, who it is hoped may be induced to favour us with the history of so interesting a case.

Women have been known to conceive again whilst in this situation, and bear healthy children.

In the case related by Dr. JOHN BARD of New York, (in the 2nd vol. of the Medical Observations and Inquiries,) the patient had borne one child previously, and at the end of nine months of

* See also Garthshore, Lond. Med. Journ. vol. viiii. and Bartholine de insolitis partûs humani viis. Astruc Art d'Accoucher, chap. iv. p. 288. Dubois in Hist. of Royal Med. Society of Paris, vol. i. 1776, Bochard Journ. de Médecine, vol vi.

† Breschet in Medico-Chir. Trans. vol. xiii.

the existing pregnancy, "had labour pains, but without a flow of water, or any other discharge,"—the pains soon went off, and the distention of the abdomen diminished to a certain degree, but a hard, indolent, moveable tumour, inclining a little to the right side, still remained. She had a return of her menses; continued regular five months; conceived again; enjoyed better health; and at the end of nine months, after a short and easy labour, was delivered of a healthy child. The extra-uterine fœtus was finally extracted by incision in the abscess, which ultimately formed in the tumour above mentioned, after which, the woman quickly recovered good health and was able to suckle her healthy infant.

In the case of Mrs. P., which has been fully and carefully drawn up by Dr. Otto, and which was also witnessed by Drs. Dewees, Duffield, Ruan, and myself, nearly the same attendant circumstances were observed. As the case will be found appended to this paper, I shall not attempt to detail it here.

If putrefaction of the fœtus takes place in the containing sac, the woman is exposed to the greatest danger; yet there are instances where, by an admirable process of nature, she has got rid of the fœtus and its appendages by an artificial passage, without falling a victim to this putrefaction. The inflammation which takes place, forms adhesions between the coats of the sac and the adjacent parts; suppuration ensues, matter is formed which discharges itself, sometimes through the parietes of the abdomen, and sometimes into the intestinal canal, through which, also, the fœtus is discharged in fragments.*

In a table of sixteen extra-uterine cases examined by Dr. Garthshore, and extracted from the most respectable authorities, seven terminated by the bones of the fœtus having passed off by the rectum; in the nine others, the fœtuses were extracted through abscesses formed in the integuments of the abdomen—most of the women recovered entirely, and several of them bore healthy children afterwards.

Notwithstanding this, you will find the French surgeons and accoucheurs, dissuading from waiting for the operations of nature

* Vide Baynam Med. Repository, vol. xvii. Gunning in London Med. and Physical Journal, 1823. Roagno. Revue Med. and Lon. Med. and Phys. Journal, 1823.

in these cases, and advising having early recourse to the operation of extracting the fœtus and appendages by what they call gastrotomy, or gastro-tubotomy. This certainly must be attended with great hazard, and we cannot at present approve of it; although a case is related where the operation was successfully performed by Dr. M'KNIGHT of New York.

In this case it is stated, on the authority of Dr. MEASE,* that the woman became pregnant twenty-two months previous to the operation, and quickened, or felt the motion of the child, at the proper time. At the end of nine months she was taken with labour pains, but no child presented, and after some time the pains ceased, but without any diminution of size. She left her chamber and betook herself to her ordinary avocations, as it is stated, with good health, but an uneasy feeling in the abdomen. Twenty-two months after conception, as stated above, Dr. M'KNIGHT extracted the child by *gastrotomy*. The placenta could not be found or extracted, the cord having been broken. The woman is said to have recovered from the operation. In these cases, it may be observed, that it is only the *fœtal* portion of the placenta that is formed, the maternal portion being added in the proper cavity of the uterus.

The following case was in part furnished by WM. AIKEN, surgeon, with whom I attended in consultation.

Mrs. B. aged twenty-six, the mother of one healthy child, aged about three years, became pregnant a second time in February, 1822, and when about two months advanced, was attacked with symptoms of abortion, the pains being regular, and considerable sanguineous discharge having taken place; the threatening symptoms temporarily abated, but returned in less than a month without any uterine discharge. The pains increased in violence as the abdominal tumour enlarged, so that towards the end of the sixth month, her torture had become so incessant as to induce a wish that premature labour might take place. At this time, a tumour about the size of the fœtal head was perceptible in the left iliac region, which appeared to be increased and forced downwards by the pains. About the end of the seventh month, labour seemed to have commenced in reality, but upon examination per vaginam, no os uteri could be felt; the pains mean time

* Memoirs of Med. Soc. of London, vol iv.

increased in frequency and in strength, and at a time when the patient appeared convulsed with agony, an organized substance resembling a portion of the placenta was expelled; the hæmorrhage now was profuse, but upon examination per vaginam, no fœtal presentation could be perceived, and it was agreed in consultation, that the case should be left to the operations of nature, as the os uteri felt like that of the unimpregnated viscus. The appropriate regimen and general treatment were directed, and the patient continued to improve in her general health; the abdominal tumour still remaining, though somewhat decreased in size. From the beginning of the sixth month, milk had been secreted in the mammæ, and about this time flowed in quantity sufficient to make her uncomfortable.

The patient continued for a time to enjoy tolerable health, and to be able to attend to her domestic concerns until the latter end of March, 1823, when, after having been exposed to intemperate weather, she was attacked with violent pains in the abdomen, incessant vomiting, and occasional diarrhœa; and continued in a suffering state until the 28th of June, when she expired.

Upon examination after death, made by Dr. Horner, in the presence of Dr. Physick and myself, the remains of the fœtus were found in the cavity of the abdomen in a putrid and confused mass—the whole so extremely offensive, and with such disorganization of the surrounding parts, that it appeared surprising that the unfortunate patient should have supported existence as long as she did. The uterus appeared in a comparatively sound state.

We confess we are inclined, with Burns, to adopt the palliative plan, and to trust more to the powers of nature than to the surgical knife, with certain exceptions, which we may perhaps hereafter state. Hence, occasional blood-letting, when there is an inflammatory tendency; rest, anodynes and fomentations, when there is much pain, should be had recourse to.

When there is an appearance of commencing suppuration, it must be encouraged by proper poultices, and when the tumour points, it will generally, perhaps, be best to open it and endeavour to extract carefully the parts of the fœtus.

Burns' chapter on this subject is worthy of attention, particularly for his valuable references, which certainly show extensive reading and judicious selection.

Philadelphia, August 17th, 1827.

My Dear Dr.—Agreeably to your request, I transmit to you a pretty exact outline of Mrs. P.'s case, drawn from my own observations, and other authentic sources.

In the morning of the 17th of October, 1823, I received a pressing message to see her, and found her in great agony from very severe pain in her right groin, and in the region of her stomach. She had before this been in good health, and the indisposition could not be traced to any thing she had eaten; but such was the violence of the attack, that I remained with her an hour, and ordered her, during this time, to lose sixteen ounces of blood, to have a sinapism applied to her stomach, to take a cathartic, receive an enema, and then to begin with a camphor mixture, containing a good deal of laudanum. At a subsequent visit, on the same day, she lost more blood, and, in the course of my attendance, she was bled ten or eleven times.

At first, she had no fever, and her right leg and thigh were rather cold, according to her sensation and the touch of others, and have continued, in a slight degree, in this state ever since, as well as a large space opposite to the pain in the groin; these were all well rubbed with the oil of turpentine. Such was the severity of her pains, accompanied, in the early part of her indisposition, with a slight feverishness, that I visited her twice a day during the residue of the month, with the exception of two days in the latter part of it, on which I paid her but one visit each. Her sufferings continued so great, that there were but four days in November in which I did not see her, and on the 4th I called five times, and on the 5th, 6th, 7th and 18th, three times. There were but nine days in December I did not call on her; and saw her five times on the 4th, and twice on the 5th, 6th, 7th and 8th; in the latter part of the month, she was visibly better, and her condition improved so much that I visited her but four times in January following; the last being on the 14th.

I have been thus minute to show the violence and continuation of the pains: during three weeks, she did not even get out of bed to have it made, and the greater part of the time she could not rise without a renewal, in a measure, of her sufferings, the greatest caution being necessary in moving her. She has never since, for a

moment, been entirely free from some slight uneasiness in her right groin, extending upwards to the right hypochondriac region, and backwards towards the kidney of the same side; in which a tumour ultimately appeared. It often happened that there was very severe pain in the stomach, and internally under the edges of the ribs of the right side, and when this was the case, she suffered less in the groin; at other times the pain in the stomach would be very acute, darting to the right shoulder and throat. She was at no time completely easy, but her feelings in this respect varied exceedingly, for she was subject to frequent irregular paroxysms of the most excruciating pain, that lasted a considerable time, and could not be traced to any exciting cause. Ever since the first attack, she has been obliged to lie on her back or right side, with her knees drawn up to relax the abdominal muscles; this has more especially been the case after the tumour enlarged, for any attempt to place herself on the left was immediately followed by great pain in the right groin, shooting up towards the kidney of the same side, and extending across the right hypochondriac region, and sometimes to the stomach, accompanied by a sense of compression and dragging of the parts that were pained.

I have mentioned, she lost a good deal of blood, and it was necessary to give frequently laxatives and enemata to keep her bowels open; at first, she was dieted rigidly. With this plan were combined various antispasmodics, anodynes, &c. such as camphor, laudanum, the black drop, opium in substance, oil of juniper, a large blister over the abdomen, hartshorn, asafœtida, Hoffman's anodyne, Haerlem oil, oil of peppermint, oil of cinnamon, guaiacum in powder, and the volatile tincture of guaiacum, valerian, ginger, belladonna, &c. During part of the time, she had the benefit of Dr. Parrish's advice, who was called in consultation with me on the fourth of November, and she commenced taking the blue pill on the eighth of the same month, with a view of exciting a gentle salivation; its use was continued until the object was accomplished, a slight ptyalism was kept up two weeks, and the mouth continued sore some time afterwards. Her situation improved, as will be seen by referring to the history of my attendance, and she stated ultimately that she thought she was pregnant, for she had distinctly felt the sensation of quickening. My friend observed that these feelings were certainly entitled to great consideration, as she was the mother of seven children; but

that her opinion would not merit so much respect, if this had been her first pregnancy, as her symptoms were so different from the ordinary evidences of that state. A tumour was felt a little above the right groin, and gradually increased—eventually a motion was felt in it, as she supposed, and led in the end to the adoption of her view of her situation. Is it possible that all these symptoms and sufferings were merely the effect of the extra-uterine conception? for such Mrs. P.'s proved to be.

On the 14th of January, 1824, nearly five months and a half before labour pains came on, I ceased visiting her, in consequence of the improvement in her condition, and although she continued feeble a good while, and had uncomfortable feelings, she did not find it necessary to apply for medical aid until her expected accouchement. When I was first called to attend her, she was nursing a child twenty-one months old, whom it was found necessary to wean very soon. My first visit on the 17th of October, 1823, could not have been more than four or five weeks after conception, for the labour pains commenced on the 24th of June following, which was about ten days later than she calculated her confinement would take place. Nor is it possible to be more exact in these cases. From former experience, she supposed it would occur at a given time after she quickened, and the period when labour actually commenced justified her calculation. She is very positive she felt the sensation of quickening, and she is the mother of seven children, and has therefore had ample means of judging. In fact, it was this feeling that first made her believe she was pregnant, for although some of her female friends had bantered her upon the subject, from her looks, in the latter part of September, and the state of her stomach, palpitation of heart, and peculiar giddiness, all confirmed in her mind their supposition, (for these symptoms always attended pregnancy with her, and had never deceived her,) she nevertheless thought that weakness occasioned by nursing an infant twenty months old, in hot weather, might account for them. Besides, she menstruated a fortnight after my attendance commenced, which had never happened to her during any former pregnancy, and this satisfied her, at that time, she was not in a family way; and she continued to do so regularly until the expected time of her confinement, but the quantity was not more than one-third of what had been common with her. During

the period of gestation, she was conscious of having all those feelings she usually had during pregnancy, and was equally sensible of the motions of the child. They continued lively until the third day after labour pains commenced, and then ceased entirely. The next morning she remarked to her sister-in-law, she was apprehensive her infant was dead, as it remained so perfectly quiet. On the evening of the 24th of June, 1824, she sent for her female friends and accoucheur, expecting from her sensations that their assistance would be required. She had all her usual feelings upon such occasions, except that the pains were confined, in this instance, entirely to the right side, the left throughout being exempt from any. They were quite severe in the beginning, and continued about twelve days, but with diminished violence, and then subsided entirely without the birth of a child, or any discharge whatever. She has remained equally large ever since, having the appearance of a female in the advanced state of pregnancy; when dressed, the eye can perceive no difference in the two sides of the abdomen, but an examination by the hand readily discovers a large tumour in the right, which has remained stationary as to size, but has become more hard the last twelve months, without exciting any increased permanent pain or uneasiness. About three days after the child ceased to move, she had a slight fever, as has been customary with her, after the birth of a child; her breasts became swelled, painful and hard, and milk was secreted and discharged.

The train of events described, with probably some other circumstances, induced her experienced accoucheurs to form the conclusion that she had an extra-uterine fœtus, and they accordingly communicated this unpleasant information to her husband.

During the last of July, and the beginning of August, including a space of six or eight days, there was occasionally an unnatural and offensive discharge from the vagina, sometimes of a reddish, and then inclining to a chocolate colour. This was followed by a flooding of two or three hours. On the 9th of the latter month, there was an abortion, which was supposed by those well qualified to judge, to be about two months old. This embryo was presumed, of course, to be in the uterus before the labour pains took place, and as it was imagined the womb had now discharged the whole of its contents, it verified the opinion already given that she had an extra-uterine fœtus within her.

After the recovery of her strength she menstruated, and the catamenia continued regularly to flow in their former quantity, until she again became pregnant, about nine months since, when they ceased, as has been usual with her in that state. The tumour occasioned her to be uncomfortable, and to be guarded in her movements, for her abdomen continued always afterwards to be distended to the size of the last stage of pregnancy, but in other respects, she has, since August, 1824, enjoyed good health, and has manifested it strongly in her appearance, with very slight interruptions by a little occasional fever. As pregnancy advanced, she was obliged to lie exclusively on her back, as the pressure of the womb on the tumour, when she attempted to lie on the right side, caused great pain in it; and the motion of the child, when considerable, even when lying in her most favourite and easy posture, likewise excited uneasiness, and sometimes acute suffering in it so that her situation, for several months, has been rather a distressed one; she was, however, cheerful, full in her habit, and healthy in aspect.

When the abdomen was examined before delivery, it was very easy to feel the line of separation between the distended uterus and the tumour; the former was much softer, was on the left, and rose so high, in part, as to be above it; and seemed to surround nearly one half of it. Indeed, it had the appearance of forming a considerable mechanical obstruction to the easy descent and birth of the child. Ever since the abortion in August, 1824, when she menstruated, there has been a good deal of pain in it, the day before the flow and the first day of it; from which circumstance it would seem probable, that the extra-uterine fœtus must be situated in the right ovarium, as the ovaria or one of them at least is necessary to menstruation, and they are doubtless brought into unusual action on this occasion.

At four o'clock in the afternoon of the 12th instant, she felt the first symptoms of approaching labour, and they increased so much by eight that she sent for her friends, and at ten o'clock Dr. Ruan was in attendance, and by twelve I am happy to state, she presented her husband with a fine, fat, healthy daughter, of the usual size. She has now a good deal of nourishment for her infant, and promises to make an excellent nurse. She suffered rather more

than she had done upon some similar occasions, but not so much as upon some others; and her accoucheur thinks the tumour had not much influence in retarding the birth of the child: her sufferings, however, during the throes of labour, were increased by the pressure on it, and she still continues to feel a little pain in it, and in her right groin. At the commencement of the labour the uneasiness occasioned by the compression of it, did not permit her to ascertain clearly the real nature of her first pains, and her mind too, from her former disappointment, was necessarily filled with great apprehensions as to the event of the case. She was, however, greatly supported by the kind attentions and cheering assurances of her medical attendant. Although lessened in size, she has still the appearance of a female in the last period of pregnancy.

The records of medicine show that this state of things will often remain for years unaltered, and then terminate in various ways. From the success that has recently attended the extirpation of several large diseased ovaria by a surgical operation, it has been suggested to her to try this expedient, but at present she entirely inclines to wait the operations of nature. I have given the account of this case beyond the period of my professional visits, presuming it would be more acceptable to you to have it continued to the present time, as it renders it more complete, and embraces some interesting facts. Yours, truly,

JOHN C. OTTO.

Dr. THOMAS C. JAMES.

ARTICLE VI.—*Case of a very painful and protracted Nervous Headach, cured by Arsenic.* By JOSEPH M. ALEXANDER, M. D., of N. C. Communicated in a Letter to JOHN C. OTTO, M. D., one of the Physicians to the Pennsylvania Hospital.

MAJOR JAMES HARRIS, aged about fifty-three years, from his earliest recollection was afflicted with a severe periodical headach, generally once a week, and never less frequently than once in two weeks. This uniformity of attack continued until he attained to maturity. After that period of life, the complaint became less frequent, but not less severe, and commonly recurred

once a month. The head at one time would be generally, at another only partially affected, each side being equally liable to suffer; sometimes, the attack would be very sudden; at others, more lingering and gradual, but always producing a general torpor with an inclination to sleep, followed by more intense pain and a disposition to vomit. In this situation, if the stomach was full and then freely evacuated, and vomiting was succeeded by from one to three hours' sleep, he would rise in apparently perfect health; but if this was not the case, the paroxysm was more protracted, and left the system more fatigued and debilitated.

For the last twelve or fifteen years, the complaint became more severe, and more irregular; sometimes there would not be an interval of more than two or three days, and never more than a month, between the paroxysms. The least change in the general habits of life, either in diet, clothing, or occupation, produced a recurrence of it. The appetite became irregular; occasionally there was no inclination for food for two days, at other times a desire for it was quite urgent. This last feeling was generally indicative of a return of the complaint. The bowels became affected with costiveness or diarrhœa—the same stupidity and inclination to sleep attended each attack—the vomiting was more difficult and distressing, and the diarrhœa more frequent and painful. Of late years, the nervous system became much affected, so that during, and for a short time after a paroxysm, the agitation and tremor of the nerves were like those of a person labouring under palsy. A great stupidity was induced, and the attack subsided by a dysentery, followed by a giddiness, so as to render it necessary to support the body by holding by something in lying down or in rising up, to prevent falling, which occurrence sometimes took place. The vertigo often happened when he was erect and walking moderately. For the last few years, his general health became more impaired, manifested by a loss of strength and a wasting of flesh. Perspiration was difficult and greatly diminished, so that exercise and labour produced but little secretion on the surface of the body, while a general feebleness and faintness ensued. Although in the intervals of the attack, when they had been long, the general health and ability of the body appeared not to be greatly impaired; yet in the course of the last year the morbid debility of the nervous system was

evidently progressing to a paralytic affection. To alleviate this distressing disease, frequent applications had been made, and various remedies used; but all in vain. Medicine, so far from preventing a recurrence of it, had never even moderated an attack. Blood-letting sometimes appeared to shorten its duration or render more mild its effects. In July last, Major Harris consented, as a last resort, to take arsenic. It was administered, in the form of Fowler's solution, in doses of from three to six drops in a little water; at first twice, and then three times a day, about half an hour after each meal, until it produced flushing and swelling of the face, stiffness of the eyelids, and inaccurate vision, accompanied by a very free diaphoresis. These effects took place in eight days; the arsenical impression was kept up two days longer, and then permitted to subside gradually, by giving smaller doses, daily diminished, for six days. No restrictions as to diet, drink, or exercise were imposed. The effect of the arsenic, from the first to the last dose, was uniform; it produced an agreeable sensation, as of a warm, diffusive, invigorating stimulus, and an entire removal of the disease that had continued from early life. By a letter from Major Harris, of the 26th of September, information was received that he had not experienced the smallest recurrence of his former complaint since he left us—his head is steady, nerves undisturbed, appetite good, digestion perfect, bowels regular, and free from uneasiness; the perspiration is easy and natural, and general health good.

Alexandriana, N. C., October, 1819.

P. S. In a subsequent letter received from Dr. ALEXANDER, he states, that about the 10th of February 1820, he saw Major Harris, and was informed by him that he had not had the least return of his former disease.

NOTE.—I knew a lady, now long since dead, who suffered many years from what is usually called sick head-ach, that came on in paroxysms that increased in frequency and violence, and ultimately confined her each time to quietude and her bed three days, and destroyed the comfort of her life, who was entirely relieved by taking Fowler's solution. She lived several years afterwards, free from this distressing complaint. J. C. O.

ARTICLE VII.—*Observations on the use of Sulphuric Acid in the Cure of Intemperance; with Cases.* By W. D. BRINCKLE, M. D.

IN the fifth volume of the Medico-Chirurgical Review, page 480, it is stated, on the authority of a foreign journal, that M. BRUHL CRAMER, a German physician, has discovered that sulphuric acid taken with occasional bitters, completely eradicates the disposition to the intemperate use of ardent spirits, by exciting a disgust to all spirituous potations.

Aware of the difficulty of overcoming a habit so fascinating, I received the above information with some degree of distrust. Still, I was urged, by my hopes of success, to give the plan a trial, whenever a favourable opportunity should be presented. Early in July, 1826, a case offered.

Case 1. A. H., aged thirty-three years, has for a long time been addicted to habits of intemperance. For the last three years, he has taken from one to four pints of brandy, gin, whiskey, or rum, every day, with the exception of an interval of three weeks nearly a year ago. Repeated attacks of mania a potu had been brought on; in one of these I had given him seventy-five grains of opium, besides a considerable quantity of laudanum, in the course of three days, before sleep could be induced; by which he was completely relieved. When called to him on the 5th of July, he was verging towards mania a potu. His wife informed me that he now was drinking from one to two quarts of rum per day, besides two, three, and four bottles of porter. I requested her to mix a drachm of sulphuric acid in a pint of rum; this was accordingly done; he had not taken much of it, however, before he detected a difference in the taste, and refused to take the remainder, which he threw out, under the apprehension that poison had been put in it. More of the liquor was sent for, and the same proportion of the acid added. After taking about half a pint of this, he again refused it, declaring that it also contained poison. Although he would probably have still taken the rum without the addition of the acid, I desired his wife not to let him have it. At this time, the symptoms of mania a potu became completely developed. This was the fourth attack of that disease, and was soon subdued by the liberal use of opium, in con-

junction with a strong infusion of common hop.* Several days after his recovery, I called to see him, and inquired whether he continued to abstain from the use of spiritous liquors. He answered in the affirmative, and the same information was given by his wife. He said he had felt, several times, as if he wanted something, but could not tell what; he thought of several articles of food, but it was nothing of that kind; he next thought of ardent spirits, but the mere idea excited disgust; this he seemed surprised at, as it never was the case before. He was still ignorant of any attempt having been made to overcome his habits of intemperance. About a week after this, his wife informed me that when he came home the preceding evening, he told her some of the men, with whom he worked, had been drinking, and that the odour of the liquor was so unpleasant to him that he could scarcely refrain from vomiting. This disinclination for all spirituous liquors continued until the 19th of August. On that day, after considerable solicitation, he was prevailed on by a companion to visit a tavern, where they indulged pretty freely in the intoxicating draught. On the 23rd, he told me that his desire for ardent spirits had returned; and requested that I would again give him something to destroy this habit, which he acknowledged he was unable to resist. I added a drachm of the acid to a pint of brandy, and directed him to take four wine glassfuls per day. The third dose occasioned vomiting. After much persuasion he attempted to take another dose, but it was so unpleasant to him, that he only succeeded in swallowing half of it. By this time, however, his desire for ardent spirits had ceased.

A day or two after I was first called to the preceding case, another of the kind presented itself.

Case 2. H. W., aged forty years, had always been an honest and industrious man, an inoffensive neighbour, and a kind and affectionate husband. His wife informed me that he had been in a frolic about a week previously; since which time, he had done nothing but throw himself away, as she expressed it. She expostulated with him, and endeavoured to persuade him to abandon the course

* It may not be improper here to mention, that the latter article is a remedy of much value in mania a potu. My knowledge of its utility, in these cases, was originally derived from Dr. Physick; to whom, as far as I know, the credit is due of introducing it into the treatment of this disease.

he was pursuing. But all to no purpose. He acknowledged his folly, and said he was convinced he was injuring himself; but notwithstanding all this, he confessed his total inability to refrain from drinking. I added a drachm of sulphuric acid to a pint of whiskey, and requested his wife to give him a wine glassful every hour. His wife told him that as he was conscious the brandy was injuring him, and yet could not relinquish its use, she had requested me to put something in it to counteract its injurious effects. This information gratified him, and he consented to take no liquor but what she gave him. She poured out a wine glassful, and he took it with much satisfaction. In an hour, she poured out a second, and although his desire for it was not so great, he drank it. The next hour she poured out the third dose, he said he believed he did not want any more. She told him it would not injure him, as the doctor had added something to it to prevent its producing any effect of that kind. He still declined taking it, alleging that he felt no inclination for it. She then proposed wine or porter; but he persisted in refusing every thing of the kind. Since that time he has had such a disgust for all spirituous liquors, that he has uniformly refrained from their use. This was a striking case, and one which unequivocally manifested the efficacy of the sulphuric acid in eradicating the disposition to indulge in the use of inebriating potations. So great was the impression made on the mind of the individual, and so sensible was he that his relief was attributable to what was put in the liquor, that he called on me in a few days to express his gratitude for the important service I had rendered him.

Case 3. C. B. had been an intemperate man for many years. So freely had he indulged in the use of ardent spirits, that his constitution was materially impaired. He commenced taking the remedy at the request of the gentleman by whom he was employed. One pint of gin containing a drachm of the acid was sufficient to destroy his inclination for all kinds of ardent spirits.

The only cases, in which I have had an opportunity of ascertaining the effects of the remedy, have now been detailed, and I trust, with candour. Certain I am, that there has been no intention on my part to impose on others; and future trials must determine whether or not I have been deceived myself.

These facts I have been induced to lay before the profession

mainly with a view of calling their attention to the subject of intemperance. It is a subject which is exceedingly interesting to every humane individual; and one which involves the spiritual, as well as temporal concerns of thousands of our fellow creatures. The domestic unhappiness, the misery, and the depravity, which proceed from this cause, have not escaped the observation of any one. But to remedy the evil, has ever been a desideratum; for there is, confessedly, no habit more fascinating, or more difficult to conquer. Men of the first respectability, men of the most extensive acquirements, and of the greatest mental capacities, find it as impossible to emancipate themselves from this hateful practise, as those in more humble life. The entreaties of friends, the sneers of foes, the sage advice of the moralist, are alike disregarded. Although at times they may be convinced of the impropriety of their conduct—although conscience may now and then alarm them, soon their perturbed reflections are immersed in the inebriating draught. Since it is so difficult, and yet so important, to eradicate habits of intemperance, any remedy, which promises to be serviceable in this way, merits the attention of a profession, which so eminently prompts its disciples to deeds of charity and benevolence. Daily opportunities present themselves of testing the power of the sulphuric acid; some of these, we trust, will be embraced; and the result, whether successful or not, made known.

What has now been said, we hope, will be sufficient to excite the attention of American physicians to the subject of intemperance. In no country, perhaps, in the world, does this vice abound more than in our own; and should the sulphuric acid even occasionally be found to excite disgust towards spirituous potations, it would prove an incalculable blessing to man.

I cannot refrain from expressing my regret, that we have no institution for the relief of persons addicted to intemperance. Notwithstanding the many charitable and benevolent societies by which we are surrounded, the poor drunkard is forgotten, or perhaps his vice is even encouraged indirectly by these very establishments. Could there be an Asylum for the reception of such persons, their intemperate habits could unquestionably, in some instances, be eradicated in one way or another. Let the medical profession once have a fair opportunity of directing their

exertions to the suppression of intemperance, and we fear not an unfavourable result to their investigations. It would give us unfeigned pleasure to see this subject engage the attention of those humane individuals, whose numerous philanthropic acts have rendered them a blessing to their country. Every one with whom we have conversed appears to be sensible of the importance of instituting a society for the suppression of intemperance: nor is the practicability of establishing a society of this kind less generally conceded. We hope, therefore, that measures will be taken by our enterprising citizens, to accomplish this design.

Philadelphia, Sept. 1, 1826.

The preceding observations were written nearly a year ago, with a view to publication; but by the advice of an eminent medical friend, I was induced to withhold them from the public, until I could obtain additional evidence of the efficacy of the remedy. Having, in the mean time, had many opportunities of prescribing the remedy, I am now prepared to make a more correct estimate of its value.

With regard to the second and third cases, the cure appears to be complete; but I have not since met with an instance where so small a quantity as was used in the second case, had the desired effect. In the first there was a relapse several times; but a recurrence to the remedy invariably excited the desired disgust. I have met with several other cases, where a relapse ensued at the expiration of three, four, and six weeks; but in the greater number of cases, the disinclination to the use of ardent spirits has so far continued. Some of the individuals have not indulged in their former favourite beverage, for three, four, six, eight, ten, and twelve months. A single case of complete failure has come to my knowledge; in this instance, the use of the remedy was persisted in for about a month, without occasioning the desired effect: the dose, however, by this time, had become so extremely disagreeable to him, that he declared he would rather have his hand cut off than continue to take it: still no effect was produced on his appetite for liquor which did not contain the acid: I was surprised to find, in this case, that the dose was rendered comparatively palatable, by the addition of a portion of hop tea. Candour compels me to say, that I have directed the remedy in

many cases, without having been able to ascertain the result. Whether or not there have been failures among any of these, it is not in my power to state; the only one of which I have any knowledge, has been mentioned.

In a few cases, a single pint of the medicated liquor is sufficient; sometimes a quart is necessary, and occasionally several gallons are required to eradicate the habit of intemperance.

My usual practice is to add a drachm of the acid to a pint of any description of liquor the patient prefers: now and then I find it necessary to augment the quantity of acid to two drachms to the pint. The dose is a wine glassful every one, two, or three hours; the interval between the doses being regulated by the quantity of liquor the patient has previously been in the habit of taking; I always request that it may not be taken to the extent of producing intoxication. An individual, about three weeks ago, instead of attending to the directions, took a quart of liquor, containing two drachms of the acid, in less than two hours, and requested his wife to go for more, which she refused to do before the next day; but on the ensuing day, he told her it was not necessary to get any more, as his desire for ardent spirits had ceased. No bad effect was occasioned by so large a quantity being taken in so short a period.

In one instance where the remedy was directed without the knowledge of the individual, the alteration in the taste of the liquor prevented its being taken: on being informed of this circumstance, I ordered a weak tincture of ipecacuanha to be made, containing a drachm to the quart; and as the taste of the liquor was not perceptibly altered, it was taken without suspicion: by this means, a considerable degree of nausea was kept up, and vomiting was occasionally excited: he continued to take it, however, until he finished two quarts; since which, he has felt no desire for ardent spirits: although it has repeatedly been offered to him, he has uniformly refused it. I have succeeded in four or five other cases with the ipecacuanha: indeed, I now make it a rule to give the latter, where the patient refuses to take the former, or where he is unwilling to take any remedy; and I prefer it in these cases, because it can be given without the knowledge of the individual, which is often an important consideration; for I not unfrequently have applications from females, who are so unfortunate as to have

husbands addicted to intemperance, and yet so infatuated as to refuse to take any thing which they might suppose would deprive them of their relish for spirituous potations. I have succeeded in several cases of this description; and to this day, the individuals have not been able to account for their disgust to ardent spirits. I commence its use by directing a drachm of pulverized ipecacuanha to be infused in a quart of any kind of ardent spirits, for ten or twelve hours; after which the liquor is to be decanted, and taken ad libitum: where a sufficient degree of nausea is not excited, the proportion of ipecacuanha is to be augmented.

I may here remark, that ipecacuanha appears to be the active constituent, in the remedy of Dr. CHAMBERS of New York, disguised with cochineal, gum ammoniac, and some other unimportant articles; and from its occasional harsh effects, I am inclined to believe that it contains, at least sometimes, a portion of emetic tartar.

We are pleased to find that a society has just been established, in this city, for the purpose of discouraging the use of ardent spirits: from the conspicuous station which many of its members hold in society, joined to their well known zeal in the promotion of objects of benevolence and public utility, we anticipate much good from their labours. It is quite gratifying to observe so respectable a number of medical gentlemen in the list of managers.

The able report of a committee of the Board of Guardians of the Poor of the City and Districts of Philadelphia, recently published, contains the following important remarks:—

"Another indispensable institution remains to be established; we allude to an Asylum for the Intemperate: this, if erected, and properly conducted, would tend to stop the progress of an increasing and destructive evil. If full powers were granted to its directors, to arrest and detain these brutalized beings, otherwise devoted to shame and reproach, a more effectual blow would be inflicted upon pauperism than could be achieved by any other means; for drunkenness is the parent of every crime, and disease and want its inseparable followers." An asylum of this description, we are fully persuaded, would be productive of results the most beneficial.

W. D. BRINCKLE, M. D.

Philadelphia, August 1st, 1827.

ARTICLE VIII.—*Observations on a form of Constipation liable to be mistaken for Diarrhœa.* By JOSEPH PARRISH, M. D., one of the Surgeons of the Pennsylvania Hospital.

THE form of constipation of which I purpose to treat, has long since attracted the notice of physicians. My attention was first called to it by an account of two cases contained in the "London Medical Observations and Inquiries," communicated for that journal by the celebrated Dr. FOTHERGILL; from the perusal of which, in the early period of my practice, I derived much benefit.* Other cases of a similar character have been subsequently recorded; but, as the subject is of great importance, and as, in the experience of every practitioner, varieties often occur, which, when made known, serve to enlarge the sphere of useful medical information, I have thought that the following cases, with the few accompanying observations, might not be destitute of interest to my professional brethren.

It occasionally happens that we are called to patients labouring under apparent diarrhœa, with frequent liquid evacuations, which in fact depend upon the collection of a mass of impacted and hardened fæces in the large intestines. The importance of forming a proper diagnosis must be obvious to every one; as treatment calculated to lessen or arrest the peristaltic action, would certainly aggravate the disorder. In one of the cases recorded in the London Medical Observations, though, after long suffering, considerable relief was obtained by the discovery and removal of the offending cause, yet so much mischief had been previously produced, that the system of the patient sunk, and death ultimately resulted. The liability to mistake is increased by the insidious manner in which the complaint sometimes makes its approach. The patient has regular daily evacuations—a portion of the fæces being discharged, and a portion retained—till at length the accumulation becomes so great, and the mass so compact and hard, that the bowels are totally unable to overcome its resistance. But the passages, instead of being diminished, are now increased in number. The irritation of the mucous coat

* Vol. iv. p. 123.

gives rise to augmented secretion; and the liquid, finding its way between the hardened mass and the side of the bowel, is discharged by stool. This happens more frequently as the irritation becomes greater, till at length the patient, believing himself to be affected with looseness of the bowels, and wearing away with the violence of the complaint, applies for medical advice. Should the physician, listening to his representations, mistake the nature of the affection, and treat it as diarrhœa, the most serious consequences may be apprehended. An attentive examination of the symptoms will always enable him to form a correct judgment.

It will be readily conceived, that with such collections of offensive matter in the bowels, great abdominal uneasiness and irritation will be experienced; and frequent efforts will be made to procure relief by stool. These efforts, though generally productive of liquid discharges, are attended with much straining; and, as they are ineffectual in removing the offending cause, are not followed by entire relief. By this circumstance alone the complaint may be distinguished from diarrhœa, in which the pain always ceases for a time after the discharge. When the mass is situated in the colon, it sometimes happens that the symptoms of enteritis make their appearance; as tension of the abdomen, and great soreness upon pressure, attended with considerable febrile excitement. When the rectum is the seat of obstruction, the irritation occasioned by the pressure of the fæces is often extended to the bladder, and disease of this organ may be suspected as the sole cause of the symptoms. The same remark is applicable to the uterine system. In these cases, examination by the finger in the rectum will sometimes detect the real seat of disease; and the impossibility of throwing up injections, or their immediate return after they have been introduced into the bowel, affords additional evidence of the existence of obstruction.

The nature of the complaint having been ascertained, the treatment is exceedingly simple. Purgatives, assisted by injections, are the remedies chiefly to be relied on. I generally employ castor oil, or senna and salts, or jalap and cream of tartar. It is not sufficient to procure a few passages only: the cathartic should be repeated frequently till hardened fæces cease to be discharged; and the quantity of dark-coloured offensive matter which thus comes away, is sometimes so great as almost to exceed belief.

When the feculent mass occupies the rectum, mechanical means, as the use of the finger or the handle of a spoon, may be brought in aid of the cathartic. The warm bath also will be occasionally found highly useful, by inducing relaxation; and general and local bleeding, with blisters to the abdomen, become necessary, when symptoms of enteritis conjoin themselves with the constipation.

After the obstruction has been removed, its return should be obviated by the use of a laxative diet, assisted, if necessary, by an occasional resort to the milder cathartics.

One of the first cases which fell under my notice, was that of a lady of this city. Some weeks after parturition, she was attacked with severe pain, and much general uneasiness in her abdomen, attended with frequent discharges from her bowels. When I first saw her, she told me that she was labouring under a "putrid lax," a name she was induced to give to the complaint, in consequence of the extreme fetor of the evacuations. She was taking opium, port wine, and bark, with the view of strengthening her system, and checking the discharge. Finding, upon inquiry, that she had been affected in this way for a long time, that her suffering was almost continual, and that not even temporary relief was afforded by the evacuations, I at once suspected the existence of hardened fæces in the bowels. The course of treatment she was before pursuing was immediately changed, and cathartic substituted for astringent medicine. By the free and repeated use of castor oil, which was happily well retained by the stomach, the bowels were thoroughly evacuated, and large quantities of feculent matter brought away, to the indescribable relief of the patient. She told me she suspected that the mass had remained in her intestines for five weeks; and that when it was discharged, the first stools were so exceedingly offensive, as almost to make her faint.

About the same time I was called to a little girl, in the family of a gentleman of Southwark, affected in a similar manner. She appeared to be labouring under diarrhœa; but no relief resulted from the evacuations; the pain and irritation were constant, considerable fever was present, and the symptoms of enteritis occurred during the course of the complaint. From these circumstances, suspecting the existence of feculent accumulations, I prescribed cathartics and injections, which were very freely

administered. To overcome the inflammatory symptoms, several bleedings were necessary: a blister was also applied over the abdomen, and the warm bath employed. Her bowels at length yielded to the combined influence of these remedies; and large quantities of hardened fæces were discharged. After this she rapidly recovered.

I have known the complaint to occur in very young children. Not many years ago, I had under my care a little boy, the son of a highly respectable merchant of this city, who complained of great distress in his bowels, strained very much at stool, and, together with other liquid evacuation, passed a little blood. As the irritation was maintained notwithstanding the discharges, there was reason to suspect obstruction in the bowels; and the suspicion was confirmed by the fact, that every effort to administer injections was rendered abortive by some impediment in the rectum. Thinking that the obstruction might be owing to hardened feces, I passed my finger into the rectum, and found that such was really the case. By means of the finger, and the handle of a dessert spoon, I succeeded in breaking down the mass, and bringing most of it away. The patient was afterwards entirely relieved by purgatives. In this case I attributed the constipation to a diet almost exclusively of cow's milk. Another instance soon afterwards occurred to me, of a precisely similar character: the previous diet had been the same, and the symptoms yielded to the same treatment. In both instances, the mass which had occupied the rectum, was found, when discharged, to consist of white indurated balls, bearing a close resemblance to soft white chalk. After the discharge of this matter, the patients were put upon a laxative diet, consisting of mush and molasses, with animal broths, to the entire exclusion of milk. In one of the cases, there was no return of the complaint; in the other, owing to the resumption of the former diet, there was a second attack, which, however, soon yielded to the usual measures. I have since seen several cases of constipation, with similar symptoms, originating in the same cause.

It occasionally happens that masses of indurated fæces are retained in the rectum, without producing any serious consequences. An old gentleman once applied to me, on account of the constipated state of his bowels: he had experienced no great

injury to his health; but his complaint was inconvenient, and he was naturally desirous of its removal: I prescribed cathartics, but there seemed to be some impediment, which resisted the attempts at evacuation. I explained to him what I believed to be the nature of his case; and with his own finger he broke down the mass, and relieved himself of the inconvenience. Cases of a similar nature have since frequently occurred to me, generally among old people.

There is one condition of things which may possibly be mistaken for the deceptive constipation, of which I have been treating; I allude to those excoriations about the anus, which sometimes occur in diarrhœa. The skin in this part is exceedingly tender; and if deprived of the cuticle, and irritated by the contact of the alvine discharges, produces, in some instances, the most excruciating pain. The patient, after every evacuation, even though it may be free and copious, remains a long time on the close stool, straining excessively, and experiencing a degree of distress which is hardly conceivable by those who have not felt or witnessed it. I have known a gentleman affected with the complaint, to scream out with the violence of the pain. Much alarm is experienced by the patient and his friends; and the practitioner should be on his guard not to mistake the affection for something more serious: nothing more is requisite to obtain relief, than to anoint the parts with lard mixed with laudanum, and to apply a soft poultice, to which laudanum may be added.

Before closing the paper I wish to observe, that all the symptoms above mentioned as dependent upon these collections of hardened fæces, may be produced by a stricture of the rectum. Hence, in the treatment, it becomes important, if relief is not soon obtained by cathartics, to make an examination of the part, and ascertain whether such a cause of the complaint may not exist. The following case will serve to illustrate this position.

The subject of the complaint was a middle aged gentleman of this city. He had for many months been subject to sudden attacks of violent pain in the abdomen, resembling that of flatulent colic. He came at length under my care, in consequence of the pain being almost continual, impairing his general health, completely unfitting him for business, and confining him to the house, chiefly indeed to his bed. I found, upon inquiry, that though his

evacuations were frequent, he passed no solid fæces, and obtained no relief after the discharge. By these symptoms, taken in connexion with the general history of the complaint, I was led to suspect some mechanical obstruction in the bowels. As cathartics produced no favourable effect, I made an examination of the rectum, and discovered a stricture, with some induration of the adjacent parts. Having previously extracted from the patient a scirrhous tumour, I had some apprehension that the disease of the rectum might prove of a similar character. Dr. PHYSICK, however, who attended in consultation, agreed with me in the propriety of employing the bougie. The instrument was accordingly introduced, and considerable relief was immediately procured by the passage of flatus. The operation being repeated twice a day, with a gradual enlargement of the bougie, in the course of a few days the stricture was so far opened as to permit the discharge of solid fæces. By a steady perseverance in the same plan, the obstruction was entirely overcome; and large masses of indurated matter came away, which there was reason to believe had been several months lodged in the bowels. The cause of the disease being removed, the patient was speedily restored to ease and comfort; and has now regained a degree of health, which enables him to pursue his accustomed avocations without inconvenience.

ARTICLE IX.—*A Case of Osteo-Sarcoma, described by* HENRY BOND, M. D., Philadelphia.

THE following case of Osteo-sarcoma, which came under my notice a few years since, occurred in a patient of my venerable and respected friend Dr. GREEN of Concord, New Hampshire.

Mr. B. K., jun., aged forty-seven years, was hardy, muscular, and vigorous, and accustomed from youth to brave more toils and inclemencies than most men are capable of sustaining. He was a hatter by trade, but much devoted to agriculture. Early in March, 1818, he began to complain of pain in his right hip, thigh, and leg. It was so severe, and attended with so much lameness, that he could not move about on his feet. He either went on horseback, or in a gig. At this time, he rode to a distance of more than twelve miles on horseback. He did not con-

fine himself to the house, or ask any regular medical attendance, until the last of April. Previously to this, he asked the advice of such physicians as he casually met, but seldom, if ever, complied fully with their directions. After he was unable to walk, he would sometimes cause himself to be carried, on a chair, into his garden or fields to superintend his labourers. During this period, he often passed very restless and painful nights. About the end of April, he was attacked with a most excruciating pain through the hip. It came on in paroxysms, and as suddenly as an electric shock, attended with a spasmodic action of the muscles of the thigh, particularly those on the anterior and inner part of it. These paroxysms would sometimes last only a very few minutes; at others an hour or more, and were usually brought on by some slight motion in the part. In the intervals between the paroxysms, he was very far from being easy or free from pain. There was but little swelling about the hip in the early part of May. He did not always refer the pain to the same spot, but in the early stage of the disease, it was chiefly referred to a spot immediately behind the great trochanter. A great deal of pain was referred to the thigh and especially to the knee. The symptoms were becoming every day more aggravated until the end of May, when he became incapable of lying in bed. He made repeated attempts, but the pain was so much aggravated that he could not endure it. During the whole of June and most of July, he sat in a chair leaning forward upon pillows on a table, neither laying down on a bed, nor leaning back in a chair, in such extreme distress, that he often passed successive nights without any sleep; sometimes not sleeping two hours in a week. While he was obliged to remain in this sitting position, his legs, particularly the right, became very much swollen; sometimes a most distressing pain extended down to the foot. The pulse at no time indicated great excitement. The appetite was variable, but generally very poor. In June there began to be a hard ridge across the groin. Early in July, it was of the size of a man's finger laid into it; possessed very little sensibility, was red and of almost a scirrhous hardness; and supposed by the attendants to be a swelling and induration of the inguinal glands. Sometimes there was severe pain in the right testicle, and the scrotum became much swollen. Several weeks before his death, the

whole hip became considerably enlarged. This swelling was confined almost entirely to the diseased side. Its limits were very distinct, and it resembled very much an erysipelatous inflammation, particularly that part that extended from the groin upon the abdomen, and as far forwards as the linea alba. It extended over the whole hip and some distance up the back. The tumour in the groin continued to become larger and more prominent. In August, it did not retain so much the shape of a ridge, being rather conical and not all times equally prominent. It was hard, but yielded so much to pressure, that it was thought by an eminent surgeon, who was called in consultation early in August, that there would be a considerable discharge of matter if it were opened. Within ten days previous to this consultation, the patient had at three or four times discharged purulent matter in small quantity *per anum*. At this consultation he was examined *in ano*, and an extensive tumour was discovered in the right side of the pelvis, which extended beyond the reach of the finger, occupied half of the pelvis, and the examination of which gave great pain. The growth of the tumour in the groin was variable, but it continued to become more prominent. Towards the close of the disease, the bowels became tender, painful, flatulent, and costive. He lingered out a life of the utmost wretchedness until the 3rd of October, the symptoms becoming more complicated and confused and not less distressing. He took very little food for several weeks before his death, and became very much emaciated. It would be useless to detail the treatment, as it probably did little or no good except to palliate the symptoms. He was visited by a considerable number of physicians residing in the vicinity, and some of the most eminent surgeons in New England were consulted. In spite of all the remedies which learning and experience could suggest, he continued for several months such a distressed object as physicians are seldom called to witness.

On the 23rd of August, I was requested by Dr. GREEN to open the tumour in the groin. It had become very prominent, and was thought to exhibit very evident signs of fluctuation. No artery could be felt passing over or through it, and it was thought it might be done with safety. It was hoped that the discharge would mitigate some of the distressing symptoms. I made an incision into the prominent part of the tumour, which was about

half way between the pubis and the spinous process of the ilium, perhaps a little nearest to this last. The opening was made about half an inch deep, and large enough to admit my finger. Nothing flowed out except a little bloody water. I then introduced my finger, which did not pass in so easily as into a sac of water or pus, but without any considerable force I carried my finger in its whole length, and found a mass of disease, to which I could discover no bounds. A considerable quantity of bloody water oozed from the wound, but no pus. I could, without difficulty, break up this mass whenever I could reach it. I worked out some pieces, which seemed a compound of osseous, cartilaginous, gelatinous, bloody, and slightly purulent matter. The tumour did not diminish after being opened, but was quite as prominent when the patient died as at any time, and the edges of the wound were everted. It continued to discharge, until he died, a bloody watery fluid, which became more and more fetid by its continuance. He died in the afternoon of October 3rd, and the next morning the body was *examined.*

Before making any incision, we could perceive, by pressing on the great trochanter and costa of the ilium, that the bones of the right side of the pelvis were destroyed, that the hip was much deformed, that the points of bone which could be felt, did not retain their natural relative position, and yielded to slight pressure. I first made a longitudinal incision over the posterior part of the great trochanter, six or eight inches long. The integuments were thin; and as soon as I had cut through them and the fascia, came to an enormous mass of disease. The fascia was tense, and appeared natural, and the mass protruded through the wound, but possessed so much firmness, that it would not flow; but it could easily be broken in pieces with the fingers: it resembled a mass of jelly, of various consistence in different parts, with osseous matter distributed through it, without the least apparent regularity or organization. The whole of the ilium, the whole of the ischium, and the greater part of the pubis, were so disorganized, that they seemed to be lost in the void and formless mass: whatever remains of them were discovered, could be easily comminuted with the fingers, or cut with a knife. A part of the os pubis next the symphisis remained, but not exempt from disease: the costa of the ilium retained its shape and some firm-

ness, but it was broken to pieces and removed without the aid of instruments: there were some remains of the acetabulum; little, however, besides the cartilage, with which the head of the thigh bone retained its proper relative position. The round ligament was diseased and very tender, but not ruptured: but neither the head of the thigh bone, nor the remains of the acetabulum, retained their natural position, in reference to the pelvis; they were crowded in towards the pubis, and the whole limb was rotated outwards, so as to throw the head upwards, (supposing the subject to be supine.) The right transverse processes of some of the lumbar vertebræ were destroyed, but to what extent the spine was affected, was not ascertained precisely. The diseased mass filled the right half of the pelvis, and the right half of the abdomen, an inch above the lower edge of the ribs: the intestines were crowded into the left half of the abdomen: the marks of disease in the pelvis and abdominal viscera diminished from the pelvis upwards. Those in the pelvis exhibited marks of high inflammation of no recent date: the upper portions of the abdominal viscera were not apparently affected: the intestines were contracted and empty. Of all the soft parts of the right side of the pelvis, little or nothing more than the integuments and fasciæ remained with any appearance of their original organization. The thickness of the integuments enveloping this mass of disease, was from one third to two thirds of an inch. The iliac artery and vein (instead of being enveloped in the mass of disease, instead of the tumour in the groin being formed above them, as would have been the case if the original supposition that the glands were enlarged, had been true) were crowded above the tumour, and seemed to run along the integuments, very little deeper than superficial veins; and in opening the tumour in the groin, I ran a very imminent hazard of dividing one, or both of those vessels: they were pressed by the tumour nearer to the pubis than natural; and upon that circumstance depended their safety. The os femoris, as far as it was examined, did not appear to be affected, although its upper end was enveloped in diseased structure, and the origins of all its muscles arising from the pelvis were destroyed.

ARTICLE VII.—*Further observations on the case of John Coyle, who was cured of anchylosis by a surgical operation.* By J. RHEA BARTON, M. D.

IN the April number of this Journal I made known my views, and the treatment of a case of anchylosis at the hip, by the formation of a new joint through the great trochanter, and part of the neck of the thigh bone. That report contained the details of the operation, and of its success down to the 31st of March. At that period the patient had so far recovered as to afford sufficient evidence of the value of the operation without reference to any subsequent improvement which might take place; but according to every reasonable expectation his amendment has been progressive, and he is now in the enjoyment of his limb to an extent worthy of particular record.

On the 19th of May he was discharged from the Pennsylvania Hospital (cured) using only a short cane. His freedom from hospital restraint tempted him to indulge in walking a great distance through the city, which caused him a return of pain, and some inflammation. A few days of rest relieved him, and since that he has suffered no inconvenience. Some time in June I made an unexpected visit to him in the vicinity of the city, and found that he had just before my arrival returned to the farm house with his cane in one hand, and a gun and some game in the other. I mention this incident to show that he not only had endured the fatigue of walking, but had sustained the jar accompanying the explosion of his piece with impunity.

I have recently made an examination of the hip, for the purpose of stating its present, and I suppose permanent, condition. There does not appear to have been any bony encroachment on the joint, but the ligamentous structure seems to have been so much thickened as to restrict by its inelasticity much of the motion of abduction and rotation. Adduction, flexion, and extension appear to be unaffected; but as any imperfection in the various movements is amply supplied by the latitude of motion between the lumbar vertebræ, it requires nice discrimination to detect in walking, any want of free motion at the artificial joint; being able to project the foot in any direction. When he sits down, and the

knees are placed on a line with each other, it will be found that the joint is flexed to its utmost, and that the curvature of the lumbar vertebræ contributes then to enable him to assume this position.

The patient declares that he never in exercise ascribes particular weakness to his hip, but that he endures fatigue there as well as in any other part of the body, and that he can walk ten miles without inconvenience.

Experience, founded on the treatment and result of this case, will, I think, induce me on another occasion to confine my patient for a longer time to his bed, in order to allow the newly formed ligaments to be perfected and strengthened. By this means it is probable that the erysipelatous attacks to which Coyle was subjected, may be avoided. That time also may be profitably employed in practising the movement of the joint. Advantage probably would be gained at this period of the case by changing the angle of the limb, and propping it in different positions for a day or two at a time. The eventual flexibility of the joint will, I think, be proportionate to the extent of movement during the curative process.

In contemplating this operation in such cases, the circumstance should not be overlooked in relation to its beneficial results, that it is not merely the loss of motion in a joint which constitutes the evil to be corrected, but it is also the mal-position of the limb. If therefore the operation should be performed, and the surgeon fail to effect the establishment of a new joint, in consequence of the tendency to ossific re-union, the lesion of the bone will enable him to place the limb in that position best suited for convenience and usefulness before consolidation shall again take place. The patient thus, in either event, will be compensated for his suffering—in the one instance by the services of a joint, or in the other by a removal of that distortion, which, in the lower extremity, would compel him to use crutches, or in the upper, deprive him of many of the offices it would be capable of performing in a more favourable position of the limb.

An interesting and encouraging fact bearing upon this subject, will be found in the perusal of Mr. Syme's case* of excision of the

* See Edinburgh Medical and Surgical Journal.—Vol. XXVI. 1826.

head of the humerus, in a carious condition. The glenoid cavity of the scapula was in a sound state, and the end of the humerus formed with it a joint susceptible of various movements by means of its own muscles.

The Periscopes of several of our own, and of the foreign journals, contain a brief notice taken from a German periodical, (*Gerson and Julius' Magazine for July and August*, 1825,) of a joint formed also at the shoulder, by the removal of a spicula of bone projecting from the cavity of an ununited fracture. In this case it is said the muscles performed their respective offices.

ANALYTICAL REVIEWS.

ARTICLE VIII.—*Chimie Organique, appliquée à la Physiologie et à la Médecine, contenant l'Analyse des Substances Animales et Vegetales; par* LEOPOLD GMELIN, *traduit de l'Allemand par* J. INEICHEN, *avec des Notes et des Additions sur diverses parties de la Chimie et de la Physiologie, par* M. VIREY. Paris, 1823.

THERE are few departments of medical science to which the physicians of our country have paid less attention than to medical chemistry and physiological botany. The cultivation of these sciences is so intimately connected with the improvement of medicine, that we may confidently expect it to attract, from day to day, the increasing attention of our countrymen. Some of the most valuable additions to modern pharmacy have been the result of chemical analysis, applied to the separation of the proximate principles of vegetables. The success of these investigations must lead to new researches, that will in all probability produce as great a change in pharmacy as has already been made in chemistry itself. How much would the power of medicine over disease be augmented, if all the active principles of vegetables could be separated in a crystalline form, from the mouldering and putrescent fibre, of which they now share the decay and corruption! How greatly would the comfort of the patient be increased if the nauseous drenches of the old pharmacopæias could be changed for concentrated essences, like quinia and cinchonia!

Since the time of NEWMANN, until recently, but little has been added to our knowledge of the chemical characters of medicinal plants. The experiments which that accurate and industrious chemist performed upon the solubility in alcohol, and water, of almost every article of the materia medica, are still referred to as of the highest authority. The state of science at that time indicated neither the necessity nor the means of more

minute research, and NEWMANN accomplished all that could be expected from him. Within a few years several of the European chemists have devoted themselves to these researches, and have opened a path which promises to lead to most important discoveries.

The work before us is a compilation of the facts observed in organic chemistry up to the year 1823, and although in many cases neither the relative nor absolute quantity of the component elements of substances is given, much useful information may be gleaned from its pages.

As the book is not in common use, we think a few pages of our journal will be usefully occupied with a selection of the most interesting analyses which it contains. The work is divided into two parts. In the first, after a short sketch of vegetable and animal physiology, are given the results of the experiments of different chemists upon organized matter. Those relating to the vegetable kingdom are judiciously arranged, according to the botanical system of JUSSIEU; thus illustrating by their external, the chemical affinities of the vegetable tribes. The second part contains an account of all the proximate principles hitherto discovered in the vegetable and animal kingdoms, of their composition, chemical relations, and combinations. We know of no book which contains a greater body of information upon these subjects. In making from it the selection which follows, we have wished both to render a service to the practitioner, and to excite the attention of our countrymen to this branch of pharmaceutical research.

Lichen Islandicus—Green wax 1.6; yellow extractive matter 7; bitter principle 3; uncrystallizable sugar 3.6; gum 3.7; starch 44.6; woody matter, the nature of which approaches to starch, 36.2; a trace of gallic acid, tartar, tartrate, with a little phosphate of lime 1.9; (excess 1.6). (BERZELIUS.)

Smilax Sarsaparilla—the root; acrid bitter resin 2.8; gummy extractive matter 5.5; starch 54.2; woody fibre 27.8; loss 9.7. (CANOBBIO.)

Socotrine Aloes, resin 25; bitter principle of the aloes 74.4; woody fibre 0.6; a trace of gallic acid. (TROMMSDORF.)

Hepatic Aloes—resin 6.25; bitter principle of the aloes 81.25: coagulated albumen 12.5; a trace of gallic acid. (TROMMSDORF.)

Scilla Maritima.—The bulb dried at 100°, contains an acrid volatile sub-

stance; scillitine, with a little sugar 35; tannin 24; gum 6; woody fibre, with a little citrate or tartrate of lime 30; loss 5. (VOGEL.)

Aristolochia Serpentaria.—The root: volatile oil 0.5; greenish yellow resin 2.85; extractive 1.7; gummy extractive 18.1; woody fibre 62.4; water 14.45. (BUCHOLZ.)

Rheum Palmatum—the root; resin 10; extractive, tannin, and gallic acid, 26; gum 31; woody fibre 16.3; malate of lime 6.5, phosphate of lime 2; water 8.2. (BRANDE.)

Polygala Senega—the root: resin 7.5; senegine 6.15; sweet extractive matter 26.85; gum, with a little albumen 9.5; woody fibre 46; loss 4. (GEHLEN.)

Datura Stramonium—the fresh plant; woody fibre 3.15; gummy extractive matter .58; extractive .6; green fecula .64; albumen .15; resin .12; phosphate of lime and magnesia, and vegetable salts of those bases .23; water 91.53; loss 1.28. (PROMNITZ.)

Convolvulus Jalapa—the root: resin 10; brown extractive insoluble in alcohol 44; starch 2.5; woody fibre 29; albumen 2.5; loss 2. (CADET DE GASSICOURT.)

Callicocca Ipecacuanha—the reddish brown variety: adipocire and volatile oil 2; emetine 14; gum 16; starch 18; woody fibre 48; loss 2. (PELLETIER.)

Conium Maculatum—the juice of the fresh leaves; resin .15; extractive 2.73; gum 3.52; albumen .31; green fecula .8; the 92.4 parts which remain are water with acetic acid, sulphate, hydrochlorate, and nitrate of potassa, malate and phosphate of lime, phosphate of magnesia, iron and manganese. (SCHRADER.)

Memispermum Palmatum—Colombo root; volatile oil a trace; yellow bitter principle 13; gum 9; starch 33; woody fibre 39; animalized matter, soluble in water and insoluble in alcohol. (PLANCHE.)

Bonplandia Trifoliata—bark of the true Angustura; acrid volatile oil .3; hard bitter resin 1.7; soft balsamic resin 1.9; caoutchouc 0.2; bitter principle of the angustura 3.7; gum 5.7; woody fibre 89.1. (FISCHER.)

Mimosa—Bombay Catechu: tannin 54.5; sparingly soluble matter 34; gum 6.5; lime, alumina, and sand 5;—*Bengal Catechu*—tannin 48.5; sparingly soluble matter 36.5; gum 8; lime, alumina and sand .7. (DAVY.)

Krameria Triandra, the root—tannin 38.3; sweet principle 6.7; mucilage deprived of azote, extracted by warm water 8.3; highly azotized mucilage extracted by cold water 2.5; woody fibre 43.3; loss .9. (GMELIN.)

Ricinus Communis. The seed consists of 23.82 parts in the hundred of pericarp, which contain brown resin, almost insipid, with a little of the bitter principle 1.91; gum 1.91; woody fibre 20. The remaining 76.18 parts contain fixed oil, (which is only acrid when rancid) 46.19; gum 2.4; starch with a little woody fibre 20; albumen .5; water 7.09. (GEIGER.)

Croton Cascarilla. The bark—volatile oil 1.6; brown bitter balsamic

resin 15.1; gum, with a bitter principle, and a trace of hydrochlorate of potassa 18.7; woody fibre 65.6. (THOMMSDORF.)

Benzoin—resin 83.3; matter analogous to balsam of Peru 1.7; aromatic principle soluble in water and alcohol .5; benzoic acid 12.5; woody matter and impurities 2. (BUCHOLZ.)

Myrrh—resin containing a volatile oil 34; gum soluble in water 66; (PELLETIER.)

The most important result of these organic analyses is the discovery of those "alcaloid" or electro-positive substances, in which the narcotic virtue of plants appears to reside. Their number is sufficiently great to authorise the belief that an analogous principle exists in most plants possessed of deleterious properties. The method of separating them is simple, and an improvement of the greatest value upon the old processes of obtaining extracts; for instead of a protracted and injurious exposure to a boiling heat, these active principles are now separated and purified, by the aid of reagents and crystallization, without any appreciable injury to their medicinal virtues. Their purity can be tested with perfect accuracy, they are no longer subject to spontaneous decay and decomposition, they neutralize the strongest mineral acids, which, it is very remarkable, form with many of them salts that possess all the virtues of their original combinations in a state of nature.

The sulphate of quinia is the alcaloid salt which has been most extensively used. It has become a regular article of commerce, and large capitals are invested in its manufacture. The facility of administering it, and the certainty of its operation, secure to it a decided advantage over the Peruvian bark, which will probably be superseded altogether as a remedy in intermittents.

With respect to morphia, it may be remarked, that its narcotic power is very disproportionate to that of opium, when we take into view the proportion in which it is contained in the latter. BRANDE asserts, that he has obtained from opium seven per cent. of morphia, from which we may calculate, that the twelfth part of a grain of acetate of morphia is equivalent to a grain of opium. It is prescribed in doses of from a quarter of a grain to a grain, so that there is reason to suppose that we are still ignorant of that combination in opium which nature has endued with such terrible potency.

Brucia, strychnia, veratria, delphia, daphnia, picrotoxia and daturia, are objects at present more of curiosity and research than of medical usefulness. When we recollect the irregular action and doubtful utility of the plants from which they are obtained, we think it will be long before they gain the confidence of the profession as remedies.

There is one general fact with regard to the composition of these substances, which is worthy of notice. They contain azote, while in respect to the elements, oxygen, hydrogen, and carbon, they recede with most other vegetable stimulants from the proportion in which these exist in the truly nutritious principles of plants.

In the present state of vegetable chemistry, entire dependence cannot be placed upon the results of analysis. So much do the results obtained by chemists of known accuracy differ from each other, that we are often left by them in a state of complete uncertainty. Taking those which appear entitled to confidence, we may observe that the vegetable secretions can be divided into three great classes. The first consists of those truly nutritious substances, which constitute the almost universal food of man—gum, starch, sugar and woody fibre, in which the elements, carbon, hydrogen and oxygen exist, in what may be considered mutually neutralizing and balancing proportions, and which do not possess very decided powers as reagents. The second contains those vegetable acids in which the quantity of oxygen is increased, and of carbon diminished, and which are electro-negative, as regards their chemical action. The third are those vegetable stimulants, oils, resins, and alcaloids, in which the oxygen is decreased, and the carbon increased. They are all electro-positive, and those which exert the most deleterious action upon the animal system contain azote, a principle which places them at a still greater distance from what may be called the middle of the scale.

The following table will exhibit more clearly these views.

	Azote.	Hydr.	Car.	Oxy.	
Hydrocyanic Acid,	51.85	3.70	44.45	——	Henry.
Strychnia,	8.92	6.54	78.22	6.38	Dumas and Pelletier.
Brucia,	7.22	6.52	75.04	11.21	Caventou and do.
Quinia,	8.72	6.15	75.38	9.85	Dumas and do.
Cinchonia,	9.02	6.22	76.97	7.97	do.
Veratria,	5.04	8.54	66.75	19.60	Caventou and do.

	Azote.	Hydr.	Car.	Oxy.	
Morphia,	5.53	7.61	72.02	14.84	Dumas and Pelletier.
Narcotia,	7.21	5.91	68.88	18.	Dumas and do.
Emetine,	4.	7.77	64.57	22.95	do.
Camphor,	.34	10.67	74.38	14.61	Saussure.
Resin,	——	10.72	75.94	13.34	Gay Lussac.
Oil of Turpentine,	——	10.4	82.5	15.2	Houton Labillardiere.
Castor Oil,	——	11.03	74.18	14.79	Saussure.
Olive Oil,	——	13.36	77.21	9.43	Thenard & Gay Lussac.
Benzoic Acid,	——	5.16	67.24	27.60	Dr. Ure.
Gallic do.	——	5.	56.64	38.36	Berzelius.
Woody Fibre,	——	5.69	52.53	41.7	Thenard & Gay Lussac.
Starch,	——	6.77	43.55	49.68	do.
Sugar,	——	6.785	44.2	49.015	Berzelius.
Gum,	——	6.93	42.23	50.84	Gay Lussac & Thenard.
Acetic Acid,	——	6.35	46.83	46.82	Berzelius.
Citric do.	——	3.45	41.38	55.17	do.
Tartaric do.	——	3.81	35.98	60.21	do.
Oxalic do.	——	——	33.33	66	do.

The exceptions to the general rule I have stated are few, and the intelligent reader will perceive in them qualifying circumstances which lessen the anomaly; for instance, the benzoic and gallic acids contain less oxygen than gum, or starch, or sugar, although more than any of the electro-positive substances which precede them. They are, however, the weakest of the vegetable acids, and the former has many analogies to camphor, while the latter approaches to tannin in its affinities. Olive oil, the mildest and most nutritious of the oils, differs essentially from gum, and starch, in its composition, but it possesses cathartic qualities, and may rather be classed with the condimenta of the old systems than with the nutrientia. Hydrocyanic acid forms another remarkable exception to the rule, not in its effects on the animal system, but in its electro-chemical relations. It differs, however, from the alcaloids and resins in containing no oxygen.

In the present state of our knowledge it is difficult to apply the doctrine of definite proportions to these substances. It is probable that they form what may be called secondary and tertiary compounds like the neutral salts; in which the more elementary oxides exist, as proximate elements. If this be the case, it will greatly simplify the expression of their equivalent numbers, and explain how variations, so slight in the ultimate elements, alter so essentially the chemical relations of organic matter.

There is yet another and an interesting speculation connected with this subject, which we will mention. These vegetable principles are not peculiar, each one, to a single plant, or to the same natural family of plants, or even to the vegetable kingdom. Opium exists in the poppy and the lettuce; camphor is formed in the woody trunk and stems of the laurel, in the root of the ginger, and the leaves of many of the labiated plants. The peach, the wild cherry, and the bay tree, alike produce the hydrocyanic acid; veratria is obtained from colchicum, white hellebore and sebadilla; and the balsamic principle of the costliest gums of the east, is found in the urinary secretions of animals.

May we not hope that future research will enable us to detect in our indigenous or naturalized plants, some of those precious products which we now procure from the most distant regions?

The progress of chemical science is daily extending the power of man. Gum and starch, and rags and sawdust, have been transmuted into sugar, and the speculation of Alexander Humboldt, that the immense forests of the north may hereafter be converted into sapid and nutritious substances, can no longer be considered as a wild reverie. The peculiar principle of the almond and the laurel, is a product of animal decomposition: the oxalic acid is obtained from sugar; oil of turpentine can be converted into camphor; the formiate of ammonia into hydrocyanic acid. Is it then an extravagant supposition, that from some of these substances, the magical art of the chemist may hereafter elaborate quinia, and morphia, and strychnia, and thus rival by the efforts of his own ingenuity, the choicest productions of the great laboratory of nature?

Article IX.—*Hospital Reports. Vol. IV. Dublin*, 1827.

This work, published in the month of March of the present year, came to hand before the emission of our July number, as will be seen by reference to the Quarterly Summary, under the head of surgery; but its reception then was of too recent a date to allow of our noticing it so fully as its merits, and the great practical instruction which it contains, entitle it to. We have

had opportunities, some years back, of learning from various sources the very respectable standing of the Dublin schools of anatomy and surgery; and the work before us, while it furnishes additional proofs of the correctness of our information, is also evidence of the industry and skill which preside over the department of clinical medicine. We hail this volume with pleasure for another reason, as evincing what may be accomplished by an association of professional men linked together by those best ties of good fellowship; zeal in a common cause, and generous emulation of each other's good deeds.

The volume consists of two parts: the first contains five, the second nineteen articles.

The initial paper is entitled, 'A Report of the Amputation of Portions of the Lower Jaw, performed at Steevens' hospital. By James W. Cusack, A. B. M. D., Vice-president of the Royal College of Surgeons in Ireland, Lecturer on Anatomy and Surgery, &c.'

The author, after adverting to the fact of the animal structure of bone throughout the whole osseous system being liable to become the seat of certain morbid growths, and of their frequently occurring in the maxillary bones, especially in their medullary structure, states the inefficiency and even injurious effects of attempts at their removal, which stop short of complete amputation or excision of the whole of that portion of bone in which the disease had its origin. This operation, although often perhaps impracticable in the superior maxilla, may be performed with more ease and safety, when the disorder is situated in the lower jaw, than could have been at first imagined. While it is admitted that in true cancer commencing in the lips or cheek, and secondarily affecting the bone, there is much uncertainty of relief from the operation, owing to the difficulty of extirpating every germ of the disease; yet a similar objection does not apply in those cases popularly denominated fungous tumours of the maxillary bones. In the latter case, "the disease is more purely local, being primarily confined to the osseous texture, and incapable of contaminating the adjacent soft parts, or of affecting the system through the medium of absorption." We shall, the author justly remarks, more duly appreciate the advantages to be derived from amputation of the inferior maxilla, if we contrast the hideous deformity

and cruel sufferings consequent upon the presence of tumours in this situation, with the comfort and safety secured to the patient by the performance of this operation. And we can, from the evidence of our own sight, join in the assertion, that "the loss of even large portions of the lower jaw is in general attended with but little inconvenience, and scarcely any perceptible deformity; while the extirpation of the original seat of disease is the best security against any return of the complaint."

Doctor CUSACK,—he will excuse us for not giving into the London affectation of pretended aversion or shame in any man who handles the knife to be called doctor, and his desire to be mistered or knighted;—doctor CUSACK, we say, for he is an M. D., gives seven cases in which he practised partial amputation of the lower jaw, and but one of which proved fatal. Of these, four were at the articulation. We here subjoin the history of the first case, which will, we are sure, amply repay our readers for a very attentive perusal of it.

"Case I.—Honora Doyle, ætat. 46, a country woman, of a healthy constitution, was admitted into the hospital, June 21st, 1824. She gave the following account of the commencement and progress of her complaint.—In May 1818, she found it necessary to have the second molar tooth of the left side of the inferior maxillary bone extracted: about six weeks afterwards she received a severe blow on her jaw, exactly over the situation which the tooth had occupied: this injury was not immediately followed by any unpleasant consequences, and was almost forgotten, when in the succeeding September, her attention was excited by the appearance of a small tumour about the size of a hazel nut, which protruded from the vacant alveolar space. The swelling, when first perceived, was firm, elastic to the touch, and almost insensible to pressure. According to her statement, it was unattended, in its incipient state, with any painful sensation; its progress was at first so slow as to be almost imperceptible, but in some weeks the swelling had become visible externally. She then applied for assistance to an apothecary, who pushed a lancet into its centre: this wound produced a profuse hæmorrhage, which was suppressed with difficulty. She subsequently made application to other practitioners, by some of whom incisions were made, which were followed by similar results: she also stated, that, after each incision, the tumour evinced a greater disposition to enlarge. At the expiration of the first year, the tumour had engaged a large portion of the bone, advancing towards the chin, and expanding inwards so as to impede the motions of the tongue, and prevent mastication. Still she was free from pain, and experienced no inconvenience, except what depended on the size and situation of the swelling.

"About this time she again applied to a neighbouring surgeon, who made a very deep incision into the centre of the tumour: this operation was followed by an immediate and rapid extension of the disease. Discouraged by these repeated failures, no further application was made for relief, until the rapidly increasing size of the swelling, which now impeded respiration and deglutition, combined with the distress occasioned by profuse ptyalism and occasional hæmorrhages, induced her to come to town, with the determination of submitting to the performance of any operation that might be proposed.

"When she presented herself at the hospital, I found almost the entire of the left side of the lower jaw involved in the disease; the tumour projected outwards, and caused much deformity, the jaws being separated by a portion which protruded between the teeth, and prevented the closure of the lips. On inspecting the cavity of the mouth, the tumour appeared to consist of three branches, involving the bone in their centre; the first, or outer, formed the prominence which was visible externally; the second, ascending between the upper jaw and cheek, and distorting the countenance, reached as high as the margin of the orbit; the third, filling up the sublingual cavity, elevated the tongue, and pushed it to the opposite side: this portion likewise extended so far backwards as to press on the anterior arch of the palate. The teeth were observed on the surface of the tumour, sunk into its substance, and perfectly moveable. The entire portion of the jaw, included between its angle on the left side, and the last incisor tooth on the right, was more or less affected.

"The situation and extent of the disease will explain the nature of her sufferings. She complained of difficulty of respiration and deglutition, articulated indistinctly, and was unable to take nourishment, except in a liquid state. A continued discharge of saliva, mixed with bloody sanies, streamed over that portion of the tumour which protruded from her lips. Her general health, however, might be considered good;—she had not yet suffered much constitutional disturbance, and preserved a tolerable appetite. Under these circumstances, the rapid increase of the disease threatening soon to put a period to her existence, it was decided in consultation, to attempt the removal of the diseased portion of bone, as the only measure that afforded a prospect of saving the patient's life.

"On Friday, July 7th, I proceeded to the operation, in presence of the surgeons of the hospital, Messrs. Crampton, Peile, Colles, and Wilmot. The patient was seated on a chair, her head supported, and inclined to the left side: this position being deemed preferable to the recumbent posture, as best calculated to favour the escape of the blood, and prevent its accumulation in the fauces.

"Standing before the patient, I commenced by making an incision from the commissure of the lips, on the right side, which, passing obliquely downwards and dividing the parts completely through, terminated about

half an inch below the base of the jaw; the bone, being thus laid bare, was divided by a small hand-saw through the alveolar process of the right canine tooth, which had been previously extracted. The next incision extended from the lobe of the ear, in the direction of the ramus, to the angle of the jaw; and both were connected by a third, carried parallel to the base. Dissecting up the flap, thus formed, I divided the masseter muscle, which was expanded over the anterior surface of the tumour, and denuded the bone midway between its angle and condyle. A needle, to which the chain saw had been connected, was passed behind the ramus, the point being kept close to the bone; the saw moved with so much ease and freedom, that the patient did not appear sensible of the division of the nerve. I then pressed the tumour downward, to put the soft parts (attached to the bone internally) on the stretch; and concluded the operation by cutting the muscles connected with the base of the jaw, exactly at their point of insertion.

"The hæmorrhage was inconsiderable; the dental, and some branches of the facial artery, were secured by ligatures; dossils of lint were placed in the cavity to give support to the cheek; and the divided parts brought into apposition, and retained by points of interrupted suture. A light dressing was applied, and the entire supported by a bandage and compress.

"The operation was tedious, yet the patient appeared so little exhausted by its duration, or the loss of blood, that she was able immediately after to walk to her bed. She swallowed drink in small quantities, which was conveyed to the base of the tongue by means of a gum elastic tube, attached to the spout of a teapot.

"In the evening (six hours after the operation) her face was flushed, her cheek hot, and slightly swollen; but she suffered no constitutional disturbance, and appeared disposed to sleep.

"Saturday.—She had slept during the preceding night, but was greatly annoyed by a profuse ptyalism, and complained of a feeling of tension in the cheek; in other respects she seemed in a comfortable state. Having removed the bandage and compress, I directed the application of the saturnine lotion, and the administration of a cathartic enema.

"From this date, her recovery proceeded rapidly; when suppuration was established, the dossils of lint were withdrawn through the mouth, and the wound acquired, each successive day, a more favourable appearance. Complete union of the divided soft parts followed, and on the twelfth day she was able to walk about the ward. Her articulation became gradually more distinct; she took every kind of nourishment which did not require mastication; the ptyalism, however, still remained. The natural form of the mouth had been so much altered, first by the protrusion of the tumour, and subsequently by the loss of support from the chin, that she was obliged to afford artificial assistance, by means of a bandage, to the lower lip. This inconvenience diminished daily during her stay in the hospital, and scarcely

any deformity was ultimately observable. She sometimes complained of the mobility of the remaining portion of the jaw, which was drawn by the action of the muscles within the line of the upper teeth, so as to require the assistance of her finger to replace it.

"In six weeks after her arrival in town, she returned to the country in good health; and according to the last account which I heard from her, still continues free from any disposition to a recurrence of the disease."

As illustrative of the variety and intensity of constitutional disorder succeeding to the fungous swelling of the lower jaw, and also of the skill and success of the amputation at the articulation, we select the fifth case, that of Mary Passmore.

"Case V.—Mary Passmore, ætat. 24, of a pale and delicate appearance, was admitted into the hospital, May 27, 1825. She stated that she had enjoyed general good health until she attained her nineteenth year; about which period she was seized with a very severe pain in the last molar tooth of the right side of the lower jaw; her sufferings were sufficient to induce her to submit to its removal; the extraction was effected with much difficulty, and was succeeded by so much inflammation, that she was unable to open her mouth for several days. About three weeks afterwards she felt a small tumour in the situation lately occupied by the tooth; it was firm, and resistant to the touch, but not insensible, some uneasiness being complained of after pressure. The progress of the disease was at first slow, the tumour having scarcely attained the size of a walnut at the expiration of three months. In the course of the first year, the swelling acquired just sufficient bulk to become visible externally; its advancement was marked by frequent paroxysms of acute pain, which were occasionally so severe as to deprive the patient of rest. During the second year the swelling continued gradually to extend along the bone towards the chin; the molar teeth, having successively become loose and painful, were removed. In the course of this year the bone snapped across, about the situation of the canine tooth, in the attempt to chew a hard crust; and the pain attendant upon this accident was so excessive as to cause the patient to faint. From her statement it would appear that the fractured extremities became united at the expiration of five weeks; but the union was accompanied with such an extension of the disease as completely to involve the part which had sustained the injury. It is unnecessary to detail minutely the various additions to her sufferings, occasioned by the gradual extension of the disease. During the year previous to her admission, she was so much incommoded by the size and weight of the swelling, that she was compelled to confine herself to her chair. Deglutition, respiration, and articulation, were all more or less impeded; and her health obviously impaired. The uterine secretion was suspended; she lost her appetite; became pale and emaciated, and suffered from occasional attacks of hæmatemesis.

"Previous to admission into the hospital, her general health became so much deranged that she was obliged to confine herself almost entirely to bed. On examination, I found that the tumour had engaged the entire extent of the jaw, from the articulation on the right side to the dens cuspidatus on the left; the principal bulk of the swelling extended itself laterally, inclining outwards and downwards, and distending the soft parts so much that they appeared on the point of giving way: inwards, it occupied the entire sublingual space, passing the median line, and touching the ramus on the opposite side, by which portion the tongue was elevated, and its tip brought into contact with the *velum palati*. The disease had extended to the articulation, and the coronoid process was so much expanded as completely to prevent any motion of the affected side; while the mouth, which was kept permanently open, gave passage to a continued stream of saliva. This tumour evidently differed in structure from those I had previously met with; it was more dense, the surface being smooth, and yielding to the impression of the finger; but its parietes possessed so much elasticity as immediately to resume the same uniformity of aspect, upon withdrawing the pressure. The incisor teeth still remained, and, in consequence of their looseness, occasioned much distress. The general health, as I have before observed, had suffered considerably; but little nourishment could be taken, and that with much difficulty.

"This was evidently a most formidable case; the constitution of the patient was broken down; the tumour extensive; the processes enlarged so as to prevent motion; and the integuments so much distended as to leave ground for apprehension that they would not be able to preserve their vitality after an operation. On the other hand, the solidity of the tumour seemed to afford an assurance of greater facility in separating it from its surrounding connections.—I was supported by the favourable opinions of my professional brethren, and emboldened by previous success.

"On Friday, June 3rd, she submitted to the operation; the preliminary arrangements for which were made in the manner before described. The mental portion of the bone was divided by the chain saw, at the situation of the first molar tooth of the left side. This step of the operation was rendered tedious by the restlessness of the patient; she depressed her head towards the sternum, and offered much resistance to the use of the saw. The transverse incision through the cheek was inclined upwards, in the direction already noticed. A third was made over the articulation, and continued downwards, to unite with the second. The division of the soft parts had been hitherto attended with a profuse hæmorrhage, much exceeding what had been contemplated. The vessels however contracted speedily on being divided, yet the total quantity of blood lost was considerable. After the separation of the cheek, and the complete exposure of the anterior surface of the tumour, the bone was found so immoveably fixed from the expansion of the processes, that I could not venture farther

in the dissection without danger of wounding the vessels beneath the base of the jaw. In this dilemma, I divided the tumour about an inch below the articulation, and quickly separated the portion included between the two sections: ample opportunity was thus afforded for clearly ascertaining the nature of the difficulties I had still to encounter. So completely had the coronoid process filled up the infra-zygomatic space, that the detachment of the insertion of the temporal muscle proved both difficult and tedious: after it had been separated, I proceeded to the removal of the condyle. Having fairly exposed the anterior surface of the articulation, I perforated the capsular ligament, and finally completed a tedious and disgusting operation, during which the patient had fainted several times, and rejected the contents of her stomach. The integuments having been replaced, and the wound dressed in the usual manner, she was removed to her ward and placed in bed; when she exhibited but feeble signs of animation, and remained in the same state of exhaustion for several hours. Her countenance was pale, skin cold, and pulse scarcely perceptible. Re-action took place but slowly;—in twenty-four hours after the operation the lip and cheek were still cold; yet from this period little trouble was experienced; a mild inflammatory action succeeded, and in six weeks she was restored to her friends, fat and healthy.

"It was remarkable that in this case the cheek still retained a natural prominence, a newly formed structure appearing to occupy the place of the bone, and scarcely any perceptible deformity resulting from the loss of so large a portion of the lower jaw."

The next case, that of James Mahony, is also full of interest; we omit the account of this patient prior to the operation, which, however, as having been attended with unforeseen difficulties, and as setting in strong relief the coolness and minute anatomical knowledge of the operation, we shall transcribe.

"The position of the patient, and all the preliminary arrangements being disposed exactly as in the preceding cases, I commenced the operation by an incision, which connected the commissure of the lips of the affected side to the nearest point of the newly formed opening in the cheek. A second incision descended along the inner border of the opening: a third was prolonged in the direction of the symphisis, towards the left side, as far as the second molar tooth, which had been previously extracted. I next dissected off the flap thus marked out. The instant the separation of the under lip was completed, a large mass of the tumour, which had been supported and retained by this barrier, burst forth, presenting a congeries of fungous or granular masses, which separated into distinct portions: the sight was so appalling and unexpected, that many present were alarmed for the result: it was, however, too late to recede: I directly applied the chain-saw through the alveolar process, from which the tooth had been

removed: I next circumscribed the chasm in the cheek, by two incisions, which were extended outwards, and united over the external side of the tumour; another incision being made in the direction of the condyloid cavity, and prolonged downwards, to the point of union.

"I then proceeded to expose the anterior surface of the tumour, when, upon minute examination, it was found that no trace of the right side of the jaw bone existed; the whole having degenerated into a softened structure, separated into distinct portions, by deep fissures. To insulate the entire disease at once, was impossible; I therefore removed the mental portion in the first instance; and, by a little care, was able to accomplish the separation of the entire mass, although broken up into several pieces; in this part of the operation, the cutting edge of the knife was used as little as possible. The salivary glands were completely laid bare, being exposed to view with all the vessels and nerves which lie under the angle and base of the jaw.

"These different parts, with the surrounding structures, were ascertained to be perfectly healthy. The diseased mass rested in a bed of cellular substance, which greatly facilitated its removal. It was a curious fact, that no trace of either of the processes could be observed: indeed, so perfect was the disorganization, that only about one inch of *bone* was obliged to be removed. The quantity of blood lost during the operation was not very considerable, the few vessels that required a ligature being readily secured: the chasm which remained was filled up with lint; the edges of the wound approximated, and retained by points of interrupted suture. After having been placed in bed, the patient was somewhat feeble, and continued weak for several hours; but was in a short time restored by the use of some simple cordials.

"This man's general health improved rapidly; he was soon able to leave his bed; his wounds all quickly healed, with the exception of a small fistulous opening, which continued to discharge saliva from the most depending part of the cicatrix: this opening has, however, since perfectly closed, and he continues to enjoy good health, free from any appearance of a return of the disease."

The case which terminated fatally, was of a healthy female, Catharine Kenney, aged thirty, from whom Dr. Cusack removed the whole of the left side of the lower jaw. Things went on very well until the fifth day after the operation, when erysipelas made its appearance; and on the following day extended over the entire cheek. On the ninth day, her pulse was 126, small and weak; she was perfectly collected, but complained of dyspnœa, with difficulty of deglutition, and also of a pain, which she referred to the ensiform cartilage. From this time she continued to sink gradually in strength, and expired on the following morning."

"On dissection it was ascertained that the inflammation had extended itself into the cellular texture surrounding the larynx; the cells contained a sero-purulent fluid in small quantities, and the mucous membrane of the glottis was elevated in two small circular points: but the morbid appearances were not as distinct as I have been accustomed to find, when death has followed upon diffused inflammation in this region. The viscera of the thorax and abdomen were healthy. The unfortunate termination of this case caused me much disappointment; yet I was not unprepared for the occurrence of such an accident. Fatal cases of diffused inflammation succeeding to operations in the vicinity of the base of the jaw, are by no means unfrequent. Not many years since, I lost a patient in a similar manner, after the removal of a small diseased gland, connected with cancer of the lip: erysipelas set in the third day, and death took place on the sixth. In this individual, the entire cellular texture surrounding the larynx and pharynx participated in the disease, the same morbid appearance being likewise visible within the thorax, in the course of the trachea and œsophagus."

It would seem, from a quotation made by our author from the new edition of SABATIER's "Medicine Operatoire," that DUPUYTREN, out of eight or ten cases of amputation of the lower jaw, lost one in a manner very similar to that detailed above.

Dr. CUSACK concludes his paper by "a brief summary of the method employed in the performance of the foregoing operations, and notice of the means taken to avoid some difficulties which had at first caused much embarrassment." The copious extracts which we have already made, preclude our inserting these directions and precautions, which the operating surgeon will do well to consult in the work itself: they may, however, be summed up under the following heads. The removal of all teeth necessary to permit the free division of the bone, on the day previous to the operation: the manner in which the patient is to be seated: the direction of the first or mental incision, according to the situation and extent of the disease: the size of the chain-saw, which is not to be above fifteen inches in length, to effect the division of the bone—more than one should be furnished on the occasion, in case of accident: the course of the next incision, from a little anterior and superior to the lobe of the ear, down to the angle of the jaw, keeping carefully within the line of the bone, then carried in a circular direction, about a quarter of an inch above the base of the jaw, so as to join the first incision: the securing of the facial artery: exposure of the parotid gland, and the section of the

masseter muscle, which is expanded over the surface of the tumour; the division of the ramus of the jaw thus laid bare, by means of the chain-saw: the second division of the bone having been effected, the tumour is to be pressed downwards and outwards; and having divided the lining membrane of the mouth, the cellular texture gives way, and the tumour may in great part be detached, without the use of the knife. When it is necessary to extirpate the condyle from the articulation, the attachment of the temporal muscle having been divided, the cut extremity of the ramus is to be seized with a strong pair of forceps, the capsular ligament put upon the stretch and opened: the disengagement of the condyle is effected by a blunt pointed bistoury, carried cautiously round the joint, and dividing the attachment of the external pterygoid muscle.

Dr. CUSACK was not, at the time of his performing the operation of amputating the jaw at the articulation, aware that GRAAFE had done it before him, and of course his merit for originality of view is not the less; while in simplicity of means and success he has superior claims to our esteem. He considers the precaution of tying the external carotid as practised by GRAAFE, and the main trunk of the vessel as adopted by Dr. MOTT, before commencing the operation, as unnecessary, and only adding to its complexity.

The second paper in the Reports, is entitled "*Clinical Observations*," by ROBERT JAMES GRAVES, M. D. M. R. I. A. Fellow of the College of Physicians, Lecturer on the Practice of Physic in the Medico-Chirurgical School, Park-street." This contains important cases—the first is "Abscess of the Liver." The subject was a robust man, by trade a glass-blower, in whom, notwithstanding the employment of very active means, the symptoms, four weeks after the subsidence of the first attack,

"Left no room to doubt the formation of an abscess in the liver. Hectic fever, attended with rigors, night sweats and emaciation, being accompanied by a constant sense of uneasiness and weight in the right hypochondrium, which was evidently enlarged, and harder than natural. It was also tender and painful at first, but after some time the pain became confined almost to one spot, which nearly corresponded with the centre of the external elevation."

Poultices were diligently applied, but although there was a very indistinct feeling of deep seated softness, the abscess showed

no disposition to point outwardly. The man's constitution was rapidly giving way, and it therefore became a most important question, whether the abscess in the liver should be opened by an operation. The surgeons of the hospital disapproved of the attempt: but Dr. GRAVES having seen "several cases where an incision made over a deep-seated abscess had failed from its deep situation to give vent to the matter in the first instance, and yet in the course of a few days the abscess found its way to the incision, and burst through it," was induced to propose in this case an incision about four inches long, exactly over the centre of the tumour in the right hypochondrium, and to be carried through a considerable depth of muscles, and if possible to be continued to within about one or two lines of the peritoneum. His colleague, Mr. M'NAMARA, performed the operation, but, although the incision was very deep, the situation of the hepatic abscess was not felt more distinctly than before. In two days afterwards, however, the patient sneezed, and purulent matter, in very large quantities, burst forth through the wound, not from the bottom, but from one side, since pressure on the liver caused matter to flow abundantly from that side. "Purulent matter, at first in large, and afterwards in diminished quantities, flowed through the wound for several weeks, and the man perfectly *recovered*."

In this successful, and to a certain extent, novel practice of Dr. GRAVES, we recognize an application of JOHN HUNTER's views and principles on ulcerative inflammation, in which he points out the tendency of abscesses, however deep-seated, to approach to, and discharge by the external surface, by means of what he calls mixed, or interstitial and progressive absorption. If then we make an incision over an abscess, even though we do not reach it, we bring it nearer to the external surface by the entire depth of the incision: and this we take to be as good an explanation as that offered by Dr. GRAVES himself, which is "by the removal of pressure, and partly by the inflammation arising from the incision, and which served to form a connexion between it and the abscess."

Rheumatism of the temporal muscles causing inability to open the mouth, is mentioned by Dr. GRAVES as an

"Affection unattended by any constitutional derangement, but which caused much uneasiness in the minds both of the patients and their friends,

being by them confounded with lock-jaw. A similar error was committed also in a case where the contraction of the muscle arose from inflammation, the consequence of local injury. In rheumatism of the temporal muscles, the pain and tenderness are greatest just above the zygoma. Its cure is easily effected by the application of leeches repeatedly to the affected part, and by the internal use of anti-rheumatic remedies."

This expression of *anti-rheumatic* is much too indefinite for the medical reader. Whether is he to understand by it antimonials, or the compound tincture of guaiacum, purgatives, or the rust of iron?

The case of "*idiopathic glossitis affecting only one half of the tongue*," occurring in a medical student, is interesting, as well from the infrequency of the disease as from its furnishing an example of the circumscription of inflammation, by the condensed cellular tissue forming the median line, which may be traced from the forehead to the pubis. "True idiopathic glossitis is an extremely rare disease. J. P. FRANK only saw one case during his whole life." Dr. GRAVES, while he alludes to four cases of this disease, observed of late years in different parts of Europe, does not seem aware of that one detailed by Dr. HOSACK, in a letter to the late Dr. DORSEY*, and which proved fatal; nor of another, the particulars of which are given in a letter from Dr. M'VICKAR to Dr. HOSACK, and which ended in recovery.† In both instances the attack was brought on by the patient's taking cold. Bleeding was not practised in the first of these, until eight days after the attack, when 14 ounces of blood were taken from the arm: partial relief was obtained by lancing a tumour under the tongue, from which issued a small quantity of very offensive purulent matter on the seventh day of the disease. In the second case the swelling and inflammation of the tongue supervened on a chronic enlargement of this organ, and of the lower jaw, induced two years before, while the person was under a course of mercury for the cure of syphilis. The progress of the acute disease was very rapid, "not exceeding," says Dr. M'VICKAR, "eight or ten hours from the time he first began to perceive it, until he sent for me on account of his difficulty of breathing." The tongue was at this time protruded from the lips upwards of an inch, and so filled up the posterior fauces as greatly to obstruct respiration:

* Hosack's Medical Essays, Vol. II. p. 181—8. New York.
† Ibid. p. 188—90.

the face was flushed and turgid, and there was much action in his pulse. He was immediately bled to between thirty and forty ounces, deep scarifications were made in his tongue with a scalpel, a blister was applied to the throat, and antimonials and salts were administered with the happiest effect. To the bleeding, scarifications, and antimony, we must, as Dr. M'Vickar very properly thinks, attribute the relief, since it was too sudden to have been at all effected by the blister or cathartic. The tongue was in the course of a few days reduced to its previous size by a continuance of the antiphlogistic plan. We cannot help contrasting these two cases in their treatment and results. The practice of the young house-physician, (Dr. M'Vickar) in the New York hospital, where the latter occurred, was prompt, rational, decisive and successful. The first mentioned patient, the history of whose case is drawn up by Dr. Hosack, was a man of large fortune, and who had summoned to his aid four physicians, the last of whom, Dr. H. was called the day before his dissolution; and yet, if we except the tardy detraction of fourteen ounces of blood on the eighth day of the disease, little else was done; for in such a case we consider blistering and purging, and gargling, and vomiting, and towards the conclusion a decoction of bark and snake root, and nourishment rendered more stimulating by the addition of wine, to say the least of it, a very inefficient practice.

The application of leeches directly to the tongue is much recommended by Dr. Graves, and, as we think, most correctly, if, independent of his experience, we may be allowed to draw on our own, not indeed in glossitis, but in that form of disease, in which, together with a rapid swelling of the parotid gland, there is inflammation of the adjacent cellular tissue, extending to the throat, and seriously impeding respiration, and almost obstructing deglutition. We have witnessed the rapid and alarming progress of the inflammation in such a case, and are well assured that life would have been terminated in a few hours, but for the speedy detraction of blood from the part by means of leeches.

The manner in which Dr. Graves treats colica pictonum, was mentioned in the last number of our journal, in the Therapeutical department of the Quarterly Summary. Dr. G. states, that "a case of paralysis after painter's colic, treated also in the Meath

hospital, received great benefit from the use of strychnia, as recommended by MAGENDIE."

"*Whitish Stools.*"—Under this head Dr. GRAVES details the case of a gentleman who had been severely attacked last summer by dysentery, then epidemic. The disease was so far removed as to leave him with a good appetite, and tolerable digestion—one or two natural stools daily without tenesmus: but he was becoming daily more emaciated and weak, and

"Complained of eight or ten sudden calls to stool during the twenty-four hours, attended with an impossibility of resisting the bearing down and weight felt in the rectum, so that the evacuation often followed before he had time to retire to the water closet. These evacuations were preceded by no premonitory sensations, and consisted merely of two or three table spoonfuls of muco-gelatinous matter, which varied in colour and consistence, generally resembling thick milk, or puriform fluid, and occasionally a transparent tremulous jelly."

This disease is properly referred to an irritation, or sub-inflammation of the mucous membrane of the rectum, and our author objects naturally enough to the explanation of the phenomena of white stools, as given by CULLEN, and retained by GOOD, viz. in making them depend on the chyle, which, in place of being absorbed, passes downwards, and is carried off per anum. Such errors must ever be current so long as the name of the disease is derived from a symptom, an occasional effect, in place of from the altered tissue or organ, the immediate cause. For this reason we could have wished that Dr. GRAVES had substituted another term than white stools, the more so as he points out other varieties of intestinal disorder, in which the discharges are white, as if coloured by lime, absurdly enough called *diarrhœa gypsata*, or gypseous diarrhœa, by GOOD; and he tells us that occasionally

"A similar state of the mucous membrane lining the small intestines may occur, and give rise to a white secretion from its surface, as proved by examination of their contents, in persons who had died of the East India cholera, in many of whom white milk-like stools had been observed during life. These stools were found on dissection to depend on a secretion from the small intestines. The *diarrhœa alba*, described by HILLARY as occasionally epidemic in Barbadoes, probably arises from a similar cause."

No remedy was found of any avail, in the above detailed case, in the hands of Dr. GRAVES, until he made use of strychnia, "on the authority of Dr. RUMMEL, who had employed the extract of

nux vomica with great advantage in the complaint. One twelfth of a grain of strychnia, given in the form of a pill, twice a day, completed the cure in about three weeks." From the well known power of the balsam copaiva in chronic irritation of mucous surfaces, we should for ourselves be inclined to make use of it in the above disease, with an expectation of unquestionable relief ensuing therefrom.

"*Black, or very dark stools.*"—Until the time of HOFFMAN, the only two recognized causes of this appearance were, effusion of blood into the intestines, causing true melæna, and black bile. To these, physicians at all conversant with pathology have very generally consented to add a third, viz. a vitiated secretion from the mucous surface of the alimentary canal. To the American practitioner, this is a subject of peculiar interest, connected as it is with his opinions and *methodus medendi* founded thereon, in yellow and bilious fevers, in the former of which we on this side of the Atlantic were the first to point out the true nature of the black vomit. It has been shown to be a morbid secretion, or discharge from the mucous coat of the stomach, and not atrabilis, or even blood; for however black, or even floculent, bile taken from the gall bladder may be when first put in water, a part will immediately mix, and colour this latter fluid; and the more granulated portion will, by a little pressure between the fingers, furnish a rich yellow, or gamboge colour; a change this, which cannot be brought about with the coffee ground ejections in yellow fever; nor will the water be tinged red, as occurs in true melæna, notwithstanding the blood may have been retained for a considerable time in the intestines. Of the precise cause and nature of the dark tar-like stools in bilious fever, we are not so well informed: though resembling so much, in hue and appearance, the inspissated bile of the gall bladder as to lead to a belief of their deriving their qualities from this latter fluid, yet when we reflect, that prior to these fœcal discharges being brought about, those immediately preceding them often do not display a want of bile, nor any particular vitiation of it, we become inclined to the opinion of such black stools being the consequence, and in a great measure the direct product, of a morbid secretion from the small intestines, especially the duodenum. As the fever advances and attains its second stage, most unhappily called typhoid, this tendency of the alimentary mucous surface to

secrete dark matter is increased, as we see by the incrustations on the tongue, lips, gums and fauces; and after death, in the large intestines.

The effects of a discharge of black matter, or the associated symptoms and state of the patient, are very different, in the three forms of disease above designated, viz. yellow fever, bilious fever, and true melæna. In the first of these, the ejection from the stomach of dark coffee ground matter, or black vomit, is a symptom of the most alarming, and usually fatal nature: in the second, the discharge is speedily followed by an ameliorated condition of the fever, as indicated by moisture on the skin, diminished thirst, and a desire to sleep; and affords one of the best justifications of the purgative plan so much insisted on by our medical brethren in this country, and so often carried by them *à l'outrance.* In the third case, again, where there is really an effusion of blood, the evacuations, when copious, are followed by great debility and frequent fainting. In the chronic forms of disease, to which Dr. GRAVES more particularly alludes, and to which Mr. ABERNETHY has directed the attention of the profession, the black colour was evidently derived from the intestinal mucous membrane. In a very remarkable case which Dr. G. had under his care, "very great quantities of matter, sometimes of the consistence and colour of tar, and sometimes resembling ink, were passed by stool for ten or twelve days in succession." As regards treatment, he assures us "that mercury had no effect on the appearance of the stools, nor was there any symptom of hepatic disease; but a temporary improvement in their appearance always followed the internal use of stimulants, such as spirits of turpentine; and the case finally yielded to the use of this and other stimulating tonic remedies." Here again we have to express our regret that Dr. GRAVES speaks merely of a leading symptom, and of the remedies which he made use of to combat it, without his apprizing us of the particular condition of his patient—whether the circulation was slow and feeble, or hurried and active—the skin hot and dry, or cold, or soft and moist—of a natural hue, or discoloured—considerations these, indispensable to our forming any conclusions as to the propriety of using certain remedies, recommended by others, or making trial of new ones for ourselves. Without such minuteness of specification, therapeutics degenerates into mere

conjecture, and the experience of the present fails as a guide for the future. In clinical medicine, we have a right to exact the most rigid adherence to the laws of evidence, and clearness of narrative: the physician must be a faithful chronicler, before he is at liberty to aim at becoming a lucid historian; nor can we give our assent to his inferences, whether he calls them his opinions or his experience, unless he furnishes us with the facts from which they are said to be drawn. In the case stated by Dr. GRAVES, we only learn incidentally, what was the appearance of the tongue: it is indeed alluded to most appositely to the pathology of the disease; but we were entitled to its presence under the clinical head. He reasons in the following manner:

"That the great quantity of black matter passed by stool was owing to an increased and vitiated secretion from the intestinal mucous membrane, was proved by the following experiment: I cleaned one half of the tongue, from which I washed, with much difficulty, the black tenacious mucus: I watched it for several hours, and found that the part I had cleaned became gradually black and foul; the black mucus being evidently a secretion from its surface. Analogous to this case is one which was formerly under the care of Mr. WILMOT, and in which large quantities of blackish mucus were discharged *from the bladder*."

Secretions or discharges of black matter do not come from the mucous surface alone, they have been seen from the skin and the serous surface, as in the peritoneal cavity.*

Contagious Psoriasis. Scaly Tetter.—The opinion of BATEMAN and DUFFIN, that scaly eruptions are not contagious, is contested by Dr. GRAVES, who gives cases which go to show that such diseases may become communicable by contact, under certain circumstances.

Swelling of the Extremities.—Dr. GRAVES seems determined on giving the plainest names to the diseases of which he treats: the disadvantage to the medical reader is, that the name taken from a prominent symptom, conveys to him no idea of the nature or peculiarity of the malady. The two species which Dr. G. describes, are, he thinks, pathologically different from either of those acknowledged by nosologists. These latter are *phlegmasia dolens* and *elephantiasis*, or *bucnemia tropica* of Dr. GOOD. Of the

* See Vol. 2. Art. IV. of this Journal, in which the late Dr. Monges adduces instances of this nature.

first additional species noticed by our author, he has seen but one case: the patient was a young man, 25 years of age, and otherwise healthy: he was admitted into the Meath hospital, on account of an extraordinary enlargement of the left lower extremity. "The limb," which is represented by a plate in the work under review,

"Measured round the thickest part below the knee, two feet nine inches in circumference, or about the same size as the body. The swelling felt firm to the touch, and extended nearly half way up the thigh, where it rapidly diminished; and at this part, the integuments felt loose and flabby: the upper part of the thigh was not increased in size: on the foot, the swelling was exactly similar to that described by CHEVALIER; and overhung the toes, 'so *that all except the great toe were imbedded in it.*' Some parts of the skin, particularly in front of the tibia, and on the instep, were covered with hard concretions, arising from an occasional oozing of fluid from slight fissures, which fluid afterwards dried and formed a sort of scab; and being mixed with the furfuraceous scales of the thickened and desquamating cuticle, these scales might have been confounded with true tubercles: except in these parts, the cuticle did not appear very rugged, or much thicker than natural.

"Towards the bottom of the deep fissures which divided the swelling into lobes, the cuticle was very thin, and the skin reddish, and constantly moistened with a fluid secretion. The swelling had commenced many years before his admission into the hospital, and had attained its enormous size gradually, and without the least pain or inflammation of the skin, the subjacent adipose tissue, or the inguinal glands. Both the knee and ancle joint retained their flexibility; he could walk and run, and until an extensive excoriation took place on the back of the leg, the disease had not prevented him from earning his bread by daily labour.

"His virility was unimpaired. Great quantities of fluid were discharged from the excoriated surface of the skin, and rendered the neighbouring parts tender and sodden. The toe nails were natural, and there was no tumefaction of any of the toes; their skin was also natural. The bottom of the swelling formed with the sole of the foot, a continuous flat surface, fully six inches in breadth, and covered with a thickened, but not diseased skin, so that he could support the weight of his body on that leg, steadily, without pain.

"From the perfect manner in which the muscles of this limb performed their proper motions, it is extremely probable that in this, as in CHEVALIER's case, "they preserved their natural relative situations with respect to the bone, and to each other, the disease not having at all extended into the interstices between them." I have no doubt, also, that as in CHEVALIER's case, the tumefaction arose from an extraordinary growth of the skin and subjacent adipose (and cellular?) tissue."

Hillary tells us that he discovered on dissection that the muscles and bones of the limb in Barbadoes leg were exempt from alteration or morbid growth. This fact, together with the general physiognomy of the latter disease, and the preservation of the size and shape of the foot, &c. would lead us to doubt the correctness of Dr. Graves's view, who considers the disease as above detailed specifically different from that described by Hillary. One alleged difference is not admitted by Dr. G. himself, viz. the swelling in the Barbadoes or elephant leg being preceded by a swelling of the inguinal glands; and he naturally infers that the inflammation of the lymphatics, and of the skin and other parts of the leg, arises from the same cause. In common with Dr. Good, he warns the physician against confounding, as writers often do, the *elephantiasis*, or the *elephant leg* of the Arabians, Barbadoes leg of late writers, with elephantiasis or elephant skin of the Greeks.

The *second species* of enlargement, observed by Dr. Graves, "may occur in either the superior or inferior extremities. It is, perhaps, more frequent in the former, and often obtains such a magnitude as to render the limb useless for the purposes of manual labour." It is most common, if not entirely restricted to the poor, and on the authority of Mr. Evanson, "prevails very generally in a particular spot or place, many in the neighbourhood being affected, and sometimes many in the same family."

The swelling is preceded by febrile symptoms, more or less severe, and usually attended with marked gastric derangement. In a day or two the back of the hand and wrist (if it be an upper extremity which is attacked) become somewhat swollen, and considerably hotter than natural. The skin becomes red, and exhibits irregularly confluent and slightly elevated patches, some with an erysipelatous appearance; but in all instances disappearing on pressure, and attended with heat, itching, or slight pain. Vesications are never formed, and suppuration occurred but in one case. After the lapse of three to eight days, the disease disappears, but usually returns in the course of four or five weeks, and runs precisely the same course, except that the œdema remains longer; and when the malady has recurred five or six times, the œdema becomes permanent, being augmented by each attack, and de-

creasing during the intervals. In general the constitutional disturbance is diminished as the local complaint becomes more marked, and there have been cases in which the local exacerbations came on without any perceptible disturbance of the system. In the course of a year or more the hand is swelled to two or three times its natural size, the enlargement taking place chiefly at the back: the skin becomes thickened, corrugated and chapped, and even opened into fissures. The wrist and fore-arm are so much increased in size, that the hand cannot be closed, and it of course becomes nearly useless. When the leg is attacked, the swelling proceeds more rapidly, and spreads over the whole limb, which acquires in consequence a very great size.

An examination of several preparations in the museum of the college of surgeons, enabled Dr. GRAVES to see the change of structure induced by the above disease.

"The cuticle in all was in many parts thickened, scaly, and rugous, and here and there had the appearance of a hard warty surface. The corium was thickened in some parts enormously, even to the extent of three quarters of an inch; the papillæ were enlarged, vascular, and elongated, and the sub-cutaneous cellular membrane was much increased in depth, and condensed in structure, containing a large quantity of granular fat like matter. The muscles were slender, but otherwise natural, so that the increased size of the limb evidently arose from the alterations which had taken place in the skin and sub-cutaneous cellular tissue, in consequence of the frequent depositions and increase of substance in these parts, after each accession of the inflammation."

As regards the pathology of the disease, Dr. GRAVES thinks that the fever, from its appearing before the local inflammation, is the cause of the latter: and that as it occasionally prevails in persons free from all gastric disorder, we must look for its cause elsewhere than to the state of the stomach and bowels. Swayed by the prevailing creed of the medical schools, which cannot admit of any other origin of a periodical febrile disease than marsh miasmata, he thinks that, in consequence of the greater prevalence of the pyrexia which accompanies this complaint in spring and autumn, it may partake somewhat of an aguish nature. Passing from the hypothetical to the experimental, he makes his treatment of the disease to consist, during the earlier stages, of antiphlogistic measures and purgatives, and the application of leeches repeatedly to the inflamed parts, cold lotions, lead washes, &c. During

the intermissions he recommends rest of the affected extremity, moderately tight bandages, and bark, or still better, FOWLER'S arsenical solution. Change of air should always be recommended, and *the antiphlogistic plan at once resumed the moment the inflammatory paroxysms recur.* The diminution of the œdema will be proportioned to the subjection of the local inflammation during the paroxysm. Adhesive straps, though a convenient means of making pressure on the limb, are reprobated as productive of irritation, and invariably aggravating the inflammation.

Persistence in the plan of treatment is essential, as the disease is of a most obstinate character.

The third paper in the collection is entitled "*A Selection of Cases from the medical wards of the Meath Hospital, and County of Dublin Infirmary.* By R. J. GRAVES, M. D. and WILLIAM STOKES, M. D. physicians to that Institution;" the object of which is to prove the utility of the STETHOSCOPE in the diagnosis and treatment of thoracic diseases.

Polypharmacy, and heroical remedies, as we are pleased to term them, have too long occupied the attention of American practitioners, to the exclusion, or at least the very imperfect study of diagnosis and prognosis, or symptomatology and semeiotics. Like the gallant but stupid officer, who, at the risk of discomfiture or total defeat, prefers storming to turning an enemy's position, our physicians, without much inquiry, begin to combat the more prominent symptom, and rely on the noble daring in the use of the lancet and calomel, or perhaps opium, to revolutionize, or, as a celebrated medical teacher used to express it, to plumb the system, when a little more attentive observation of all the symptoms, and a little more pains to detect the location of the malady, would have led them to the safer, and, in innumerable occasions, more successful practice of applying cups or leeches, or a blister, or keeping a running sore by an issue, to the great relief of the poor stomach and head, which are exceedingly distressed by our heroicals. We make these remarks with certain reservations, and we are well aware that several notable examples of physicians, free from the force of our strictures, might be pointed out, both in this city and elsewhere. But still we believe we are safe in the averment, that with looking at the tongue and feeling the pulse of his patients, ends for the most part the exami-

ination of the medical attendant, while the physiognomy and posture of the sick person, the effects of pressure by the hand on the various regions of his abdomen, and percussion and auscultation mediate and immediate as applied to the chest, are most generally overlooked or performed at random, and by accident. What a host of prescribers there are for diseases of the uterine organs, who never even think of aiding their knowledge of the state of these parts by the touch. And how many are dosed and purged without mercy, that is, without salutary effect, for disorders growing out of, or kept up by indolent hæmorrhoidal tumours, strictured rectum, or enlarged prostate, when a simple inspection or examination of those parts would have pointed out a very different and infinitely more efficient mode of practice? Surgeons must have too often witnessed permanently diseased function of the kidneys brought on by the prolonged use of diuretics, prescribed by the ignorant practitioner with the view of relieving the dysuria produced by a stricture of the urethra, not to be aware of the imperative necessity of a knowledge of the use of the catheter and bougie. Physicians, we may hope, will, in like manner, from experience of the inefficacy and injurious tendency of many remedies and modes of practice directed to the system at large for the cure of a circumscribed inflammation or effusion in the lungs, become sensible of the propriety of using the stethoscope in the diseases of those parts, to enable them not only to determine the nature, but the location of the engorged or disorganized tissues. Many years have now elapsed since the publication of LAENNEC's work on Auscultation, and the use of the stethoscope in the French hospitals, and yet, although the evidence of the very great utility of this simple instrument is most conclusive and irrefragable, its use among us on this side the Atlantic, we fear we may add in Great Britain also, is extremely limited. We are not aware of any American publication on the subject except a very excellent inaugural dissertation by EDMUND STRUDWICK, of North Carolina, entitled, "Remarks on the Stethoscope, in relation to Phthisis Pulmonalis," published in the eighth volume of Dr. CHAPMAN's Philadelphia Medical and Physical Journal, and to which we have pleasure in referring our readers, promising at the same time to place before them in succeeding numbers of our own journal, a full and connected exposition of the value of aus-

cultation, both immediate, as when the ear is directly applied to the chest of the patient, and mediate, as when the stethoscope is employed. We occasionally hear most singular objections to the use of this instrument, all of which finally resolve themselves into the two following:—the difficulty of hearing and distinguishing the different kinds of sounds in diseased lungs and heart; and the uncertainty of the diagnosis drawn from the knowledge of such sounds when obtained. To this we would briefly reply by alleging that the study of symptomatology, in all its branches, and even in its most trivial details, is an affair of time and labour, not grasped at intuitively, but mastered by frequent trials and much experience. It is by no means an easy task for the medical observer to acquire a sight so practised as to enable him to distinguish the various shades of colour of the tongue and skin, or a touch so erudite as to convey to his mind the variety of impressions corresponding with the numerous states and changes of the pulse; and yet we should, no doubt, express our amazement if we were to hear any physician discouraging a student from the study of the symptoms derived from the states of the tongue, skin and pulse, by alleging the difficulties and occasional fallacies attending the exercise of the senses of sight and touch. Why then shall we object to turning to account our sense of hearing, and making it also subservient to the grand purpose of apprizing the mind of the changes going on in organized living matter, the better to enable us to draw the necessary conclusions, and devise suitable means to check or remove the evil deplored?

We now proceed to a notice of the cases recorded by Drs. Graves and Stokes.

The first is of James Conner, aged thirty-three, admitted into the hospital, September 13, 1825, labouring under dysentery of about a month's standing, marked by bloody stools, tenesmus and prolapsus ani. Calomel and opium administered during a week salivated him with some relief; and small doses of turpentine cured the dysentery, which was, however, succeeded early in October, by a swelling of the extremities. The anasarca was removed by small doses of colchicum, and the patient appeared in a fair way of recovery, until the 13th, when he suffered much orthopnœa during the night, and stated, that for the last three nights he had no expectoration. The suspicion of pneumonia was diminished as our authors thought by the appearance of the symp-

toms so immediately after the removal of the external dropsical swelling, in a debilitated constitution, and it was agreed that the pectoral uneasiness might be accounted for on the supposition of hydrothorax. The diagnosis between the pneumonia and hydrothorax was deemed of great practical importance, and this was at once afforded by the stethoscope. The patient was found to lie on his left side: "here the crepitating rale was heard above the left mamma; the respiratory murmur beneath was inaudible; pulse 105. Diagnosis. *Inflammation of the lower part of the left lung.* Fiat. venesect. ad ℥xiv."

Here we would beg leave to make a few comments on the first part of the case. The narrators of it say not a word about the appearance of the tongue, or the heat, or tenderness, or the absence of these feelings, of the abdomen, during the dysenteric period, nor of the pulse during the same time; nor do they speak of either tongue or pulse throughout, until they had determined to bleed, and then we have the number of beats given without any allusion to the other conditions of the arterial system. We deem this case no unapt or unfrequent instance of the manner of treating a malady by merely obviating the most troublesome symptoms, and hunting the disease from organ to organ, in place of embracing, in one view, all the symptoms, and inquiring into the state of the system, or of the particular tissues, which these symptoms should represent, so that the physician shall be enabled to destroy the predisposition or constitutional condition of the body, by which the malady under different disguises had hitherto been fostered. Here it is that the mere symptomatologist and the pathologist are at issue. The former is too often content with what more immediately excites his attention, and is content to see an essence or moveable being in a symptom; while the latter, combining his knowledge of *post mortem* appearances with the phenomena observed during life and disease, is not satisfied until he discovers the organ and tissue actually diseased, and the state of that organ and tissue, which are represented by the collection of symptoms. These last are nothing intrinsically or isolatedly; their sole importance is derived from what they represent, and this representation is not of an ideal existence, or imagined essence, but of an organized material structure. In the case before us, we find that the favourite

remedy of calomel in dysentery, was carried to the extent of producing salivation, with the effect of mitigating, but not curing, the malady, nor of retarding that condition of things marked by anasarcous swelling and orthopnœa indicative of hydrothorax, in which the powers of the medicine are so much lauded. The spirits of turpentine obviated a troublesome symptom; and the colchicum removed another: but this practice of stimulation and revulsion was totally inadequate to prevent or even retard the subsequent troublesome attack on another organ, or series of parts. Let us oppose to this manner of proceeding the probable conduct of a pathologist in the more enlarged sense of the word, by asking whether a careful inquiry into the condition of the mucous and serous tissues in the dysenteric stage of the disease, and the extent of the heart's sympathy, as indicated by the pulse, in the abdominal irritation, might not have led him to the cautious use of the lancet and the application of leeches with demulcents; and if so, and having thus regard to the probable future, as well as to the actual present, he might not have warded off the subsequent pulmonary disease. The authors of the *hospital reports* will, we hope, should these pages meet their eye, have no objection to our hypothetical view of the subject: we propose it with the utmost respect for them, and with no other intention than to arrive at the truth in some of the doubtful points of our common profession. Influenced by similar feelings, and as affording additional illustration of our meaning, if not enforcement of our position, we would say for ourselves, that without regard to the diagnosis, which they thought so important, we have, agreeably to our method of pathological reasoning, bled freely and advantageously in cases where orthopnœa and swelling of the extremities, and, as we thought at the same time, incipient hydrothorax were present; because we inferred from these symptoms, added to the state of the pulse and the difficult or impeded expectoration, that the heart and lungs were unduly tasked and oppressed, and the latter in a state of inflammation of which the effusion of serum was deemed an evidence. Here then the advantage of reasoning from the condition of an organ, rather than from a symptom without regard to what it represents: in the first case the opinion rests on a real or alleged material foundation, and of course its soundness may be readily evidenced or

disproved, whereas in the latter case our belief is derived from faith in the dictum of another person, who, on the strength of his experience, and without reasoning, will tell us that he has obviated such and such a symptom by such and such a remedy, and without furnishing us with the slightest clue to guide us in a case where we find the same remedy unsuccessful to obviate what we deemed to be the very same symptom. It must be very obvious that such experience, and yet it is that kind most largely insisted on, and most dogmatically adduced in opposition to reasoning, is mere conjecture, the dictum of the last writer or popular physician, who hands over the staff of authority to his successor, with, at the same time, the transfer of about as much knowledge as would be conveyed by an aged king, who should resign the throne to his son, with an admonition to beware of certain districts, the inhabitants of which were prone to rebellion, and a statement of the means by which he had put it down; but who, at the same time, omits giving the causes of the discontent, and the methods not only of preventing it, but of diffusing content and happiness through the whole nation.

To resume the history of the case of Conner. The most beneficial effects followed the bleeding. All the unpleasant symptoms disappeared; the respiration became tranquil, and the respiratory murmur audible under the left mamma, but was weaker than natural; the crepitus had entirely ceased. A slight return of dyspnœa was relieved by a blister under the left mamma, but an exposure to cold on the 20th, brought back the cough and laborious breathing; with a pulse beating 100, full and strong. The sound on percussion, in the infero-posterior part of the right lung, is duller than natural; and in this situation, a pretty evident crepitus is heard. On the night of the 29th, after previous reported convalescence, he was seized with sudden dyspnœa, much heaving of the chest, hard and frequent cough, without expectoration, and he lay on the left side; pulse 108, full and strong. "Auscultation. Respiratory murmur indistinct below left mamma, crepitating rale under left scapula." Blistering was again had recourse to, but without effect, and another bleeding was directed, by which he was much benefited. The crepitus disappeared, and the cough and dyspnœa were removed. Nov. 3., a return of cough, constant and hard: percussion over the inferior part of the

left lung gives a dull sound; and here the crepitus is again heard. The impulse of the heart is much stronger than natural, and the sound is heard over the whole of the right side: the sound of the right ventricle is much clearer than the left, which is dull and prolonged. The auricles give a clear sound, and there is no indication of disease in the valves." Active aneurism of the right ventricle was believed to exist, but whether from actual primary disease of the heart, or from obstruction of the lungs, could not be well determined. "The respiratory murmur gradually diminished over the anterior part of the lungs, especially under the left mamma, where at length it totally disappeared. From this time, no accurate examination was made with the stethoscope; and the effusion, which soon took place into the cavity of the chest, was not pointed out." Death took place on the 17th of December.

Dissection. "Much serum in the cavities of the thorax. The lower lobes of the right lung are hepatized, soft, and of a red colour; the superior lobe is inflamed in the first degree. The lower lobe of the left lung, especially in the point corresponding to the left mamma, is exceedingly solid and of a very dark gray colour.

Active aneurism of the right ventricle; the left is greatly thickened, without alteration of its capacity. No disease of the valves, but there is a considerable thickening, forming a semi-cartilaginous ring immediately above its origin, and causing a diminution of its calibre. The lining membrane of the aorta is much thickened, and apparently tuberculated. This appearance extends for several inches, and is caused by smaller depositions of cartilaginous matter."

Drs. Graves and Stokes consider the state of the aorta as "the ultimate cause of all the symptoms;" but we may, notwithstanding, doubt, whether, but for the continued irritation kept up by other diseases, this would have been so much aggravated as to be converted into a cause of suffering and death; at any rate, until after the lapse of a longer period than actually transpired. They remark on the disease,—and their words are worthy of all attention—that "its situation, its intensity, and the effect of remedies upon it, were in every instance pointed out by the stethoscope, with the utmost accuracy, as was proved by the sectio-cadaveris."

"*Phthisis.*"—The subject of this disease was a female, 27 years of age, admitted early in November, 1825.

"Her expectoration was copious, and consisted of a transparent mucus, in which broken up masses of an albuminous looking substance, mixed with puriform striæ, were seen floating. She constantly lay on the right side. Complaints of five months standing."

The AUSCULTATION, in this case, was of a very interesting nature.

"On the right side, about two inches below the clavicle, the voice appears to issue in the most distinct manner from the stethoscope, and is perfectly articulate; and the last letter of the concluding word is very distinct: in other words, there is true pectoriloquism. At this spot the respiration is distinctly cavernous, giving the idea of air entering a cavity in the pulmonary tissue. At the antero-inferior part of the left lung there is a bronchial respiration of the most evident kind; the sound is sharp, and the air seems to be drawn in through the stethoscope: crepitating rale over the remaining portion of this lung: the sound of the heart is heard in its superior portion.

Diagnosis.—A tubercular excavation in the middle lobe of the right lung, solidification of the superior part of the left lung: inflammation in the first degree, of its remaining portion.

On the 9th of November the bronchial respiration and crepitus had disappeared. *Diagnosis.—The left lung has become solid.* All this time she took small doses of the hydrocyanic acid, which had the effect of checking the sweating, but produced nocturnal diarrhœa, and pain in the stomach. On the 15th the bronchial respiration was again heard; each inspiration was accompanied by a tinkling sound, similar to that produced by the falling of a pin into a cup of glass; the *tintement metallique* of LAENNEC: there was also cavernous respiration. *Diagnosis.—An extensive tuberculous excavation in the superior part of the left lung.* She lingered until the 27th of December, when death terminated her sufferings.

Dissection.—The lungs were universally adherent to the cavity of the chest. In the inferior part of the middle lobe, on the right side, we found an excavation with firm parietes, and about the size of a large walnut. The superior lobe was found also excavated in a more irregular manner. The remainder of the lung was studded with tubercles: the lower lobe had much fewer of them, was still crepitating, but appeared engorged with a frothy and sanguinolent mucus.

The left lung appeared completely solid, but on cutting into its substance, an extensive tuberculous excavation was found capable of containing two oranges. This communicated with many other smaller ones, by winding canals; and in the inferior portion of the lung another excavation of great size was found."

This case is, as our authors with great propriety remark, highly interesting, from the circumstance of their having traced by means of the stethoscope the entire train of pathological phenomena.

The next one is equally conclusive, and, except in its slower progress, is similar in most respects to the foregoing. The diagnosis, *of tubercular excavations in the superior part of both lungs; that in the left half filled with purulent matter; solidification, probably from tubercles of the left lung*, was fully borne out by dissection. The mucous coat of the colon was ulcerated, especially about the caput coli.

The fourth and last case was of 'Emphysema of the Lung,' occurring in a man forty years of age, who, when brought to the hospital, was affected with cough, dyspnœa, general anasarca, and lividity of the countenance; and during the night had paroxysms of orthopnœa; expectoration free, of a yellow colour, and floating together like the white of eggs. He had been subject to an asthmatic cough since boyhood.

The diagnosis after percussion and the use of the stethoscope was at first: "*no hydrothorax. Emphysema of the lung. Bronchitis. Hypertrophia of the heart.*" To which was afterwards added, "*Inflammation of the posterior part of the left lung;*" and, before dissection, "*Emphysema, particularly of the right lung; bronchitis, entire enlargement of the right side of the heart, perhaps of the aorta. Remains of pneumonia in the posterior part of the lung.* Hydrothorax may have taken place immediately before death."

On dissection, no effusion was found, the lungs being firmly bound down by old adhesions over the whole surface; the lobes were united by recent inflammation: the *whole of the right lung was in a state of emphysema;* all the air cells appearing dilated, and the pleura in many places raised into vesicles the size of a walnut. The volume of this lung was double that of the left, *its bronchial tubes filled with a muco-purulent fluid, and their lining membrane of a bright red colour.* The left lung was much diminished in size, the upper part studded with large vesicles, the lower of a pale colour and flabby consistence; and a portion of it forming a cavity like an abscess, but found, in fact, to be an enormously dilated bronchial tube, lined by a delicate mucous membrane, from which, when cut, exuded a large quantity of a viscid and yellowish fluid. *Posteriorly the pulmonary tissue was of a dark gray colour, and cartilaginous hardness, evidently the product of former inflammation.* The heart was more than twice its usual size, the *right ventricle greatly enlarged and thickened*, the left

thickened without alteration of its capacity. Dilatation of the auricles; no disease of the valves; aorta healthy.

Any laudatory comments on the above cases would be superfluous; and we shall content ourselves with simply asking our readers, whether any or all of the common symptoms or diagnostic characters of pulmonary disease could ever have guided the physician to any such correct inferences as those to which Drs. Graves and Stokes were led by the use of the stethoscope?

These gentlemen seem, however, in their subsequent remarks, to lay too much stress on the necessity of accurately distinguishing pneumonia from hydrothorax, which are not unfrequently two stages of the one inflammatory affection, rather than diseases specifically different from eath other. Our authors are at great pains to show the organic origin of hydrothorax—that it is an effect, not the cause of a disease; an opinion which has been long acted on by the American practitioner, who does not hesitate to bleed with often the same boldness in incipient dropsy of the chest, or the second stage of pleuro-pneumonia, that he would have done in the first stage of this malady. An additional symptom or an occasional effect of a prior morbid condition does not usually, if ever, in his eyes, constitute a new malady, and one to be treated by a new set of remedies. A partial effusion of water in any of the cavities or in the general cellular membrane affords no stronger motive for the abandonment of the use of the lancet and recourse to diuretics, than the occurrence of *subsultus tendinum* in hepatitis, or in certain cerebral affections, would call for the administration of antispasmodics, to the exclusion of general and local depletory measures.

Here we must, for the present, pause, with a promise to resume our notice of this very interesting volume in our next number; a process, which, if we except the withholding for a longer time a knowledge of its contents, will not be of any injustice to our readers, since the papers constituting the reports are on separate subjects, and may each of them be taken up as a distinct and independent work. We must not, however, conclude, without adverting to the plates at the end of the volume illustrative of various morbid alterations described in it; they are well executed, and add much to the value of what, on perusal, seems hardly to require enhancement.

ARTICLE XIII.—*Exposition des Principes de la Nouvelle Doctrine Médicale, avec un Précis des Thèses soutenues sur ses différentes parties; par* J. M. A. GOUPIL, D. M. &c. Instauratio ab imis fundamentis. BACON. A Paris, 1824. Partie I.—*Irritation.*

A BRIEF sketch of the doctrine of irritation, as held by the celebrated BROUSSAIS, and his immediate followers, was announced in our last number, as intended for the present one. For the further fulfilment of this task we had laid out as the subject of a review, the work whose name is recited above, with the pathology of M. BEGIN. An accident has prevented our making direct use of the last; but from our recollections of a former perusal, combined with the more elaborate system now before us, we doubt not an abundant supply of materials for all the development which our contracted space will permit.

The beautiful theory whose outlines we intend to present, may be compared to the atomic system of the celebrated chemical philosopher, DALTON. Like the latter, it harmonizes with, and explains so many facts existing in nature, that it derives from this very circumstance a probability closely approaching to certainty. Unlike this, however, it does not appear as the fortunate hypothesis of an abstracted and speculative mind, but as a chain of inferences drawn from observation. Indeed, if we receive words in a certain acceptation, and withhold, as we are by no means inclined to do, the idea of excess of vital action in the irritative processes, the doctrine of irritation, in the hands of M. GOUPIL, assumes, very closely, the character of a careful and elaborate investigation of natural phenomena. Under these circumstances, we do not know that it is exactly fair to suffer it to lie under what is a stigma with many of our countrymen, the character of a *theory*.

The various and vague uses to which the term irritation has been applied, have been frequently alluded to in the preceding numbers of this publication. We have not time to discuss their propriety; but shall refer to our late review of Mr. TRAVERS, and proceed to describe the meaning attached to it by M. GOUPIL.

Irritation is a *morbid increase of action*, in a part, always accompanied by a preternatural afflux of fluids to the spot. The

diminished action of the same part, below the natural standard, constitutes *debility*. M. Broussais does not employ the minute subdivisions of the vital principles adopted by Bichat: "organic sensibility" is never proved to exist, unless by and with the contraction which follows its activity; the "organic sensible and insensible (visible and invisible) contractilities" do not differ in kind, but only in degree; while the "animal sensibility and contractility" are the exercise of functions performed by instruments, and not principles inherent in animal matter. Assimilation is carried on by a different power, "chimie vivante," depending upon the "vital force."

Irritation cannot, from its nature, be universal or general; it can only prevail in particular organs, and debility is produced in others as a consequence. Thus, also, debility can never be general, nor can we remove it by general stimulation, at least without augmenting a local irritation. Here, then, we find ourselves at issue with Brown, and his doctrine of general over-excitement and debility.

M. Broussais has not, according to our author, formally asserted that all diseases are produced by the two modifications of vitality which we have described; but he leaves us to infer that such is the case. All that there is specific in any disease is confined to its causes and their mode of action on the economy; things of the nature of which we are ignorant. Small pox is the result of a specific contagion; but small pox itself consists of irritations of precisely the same nature with those existing in other diseases, and producing local debility in precisely the same manner.

Irritation may be produced either directly, by causes acting in the part irritated, or by sympathy with another part. It may be produced not only by actual stimulation, but also by the long abstraction of a natural and customary stimulus, as gastritis is produced by *starving*. It may be produced sympathetically by another irritation, or finally by the *debility* of another part of the body. Thus cold and damp applied to the skin produce a chill and diminution of the vitality of the surface, but cause increased exhalation or actual inflammation in the mucous membranes of the lungs and nostrils.

There are no substances absolutely stimulant or sedative under every circumstance; all poisonous or remedial agents, while life

continues, increase the action of one part, while they diminish that of another.

Irritation is always circumscribed at its origin, and spreads either directly, or by the remoter sympathies.

From what we have said, it will be quite sufficiently obvious, that the doctrine under our consideration differs very materially in its employment of the term irritation from one which is somewhat popular among us; and which describes irritation as a minor degree of a morbid affection that precedes actual inflammation where the latter is about to take place. Irritation, according to the Broussaian usage, which we conceive correct, includes both the major and minor grades; and no distinction from this source is at all employed, unless into healthy excitement, and that morbid degree which is considered as constituting inflammation. To an objection not uncommonly heard among us, that the morbid appearances frequently met with amount to irritation, but are not sufficiently decided to merit the stronger phrase last used, the reply is that the inflammations of the viscera were incompletely studied before the present age, and that we were entirely ignorant of those of the stomacho-intestinal membranes previously to the writings of Dr. Broussais. How then can we judge what is sufficient to constitute inflammation in these organs? or is it reasonable to look in them for those appearances which characterize the corresponding affection of the cellular substance, from which our ideas are taken?

Irritation may be of four kinds; 1. *inflammation*, 2. *hæmorrhagic irritation*, 3. *sub-inflammation*, and 4. *nervous irritation*. Sub-inflammation signifies, not an inferior degree of morbid excitement, but a real inflammatory process, going on in the white capillaries, and producing scrofulous tumours, cancer, tubercles, melanosis, &c. The other terms explain themselves.

Of inflammation. We shall not pause to recapitulate its well known characters. It is not always accompanied with pain. Cases of the greatest violence are upon record, in which there was no pain. Nor is pain a common symptom of inflammations of the schneiderian membrane, nor of the mucous membrane of the lungs. M. Broussais extends this remark to the lining of the stomach and intestines; finding pain frequently not to exist. In other instances, it is more distinctly felt in some remote situa-

tion than in the real seat of disease. In coxalgia the pain is felt in the knee, in hepatitis in the shoulder, and in gastro-enteritis in the limbs, frequently far more than in the part originally diseased. Unnatural redness is a proof of sanguine irritation, that is, of inflammation, unless where the colour is owing to the subsidence of blood to a depending part, which may be distinguished by a careful dissector. But, on the other hand, the absence of redness is by no means a proof of the non-existence of inflammatory action previous to death. Severe inflammations of the skin, unquestionable in their nature and severity, and subjected to the eyes of the physician, often entirely disappear before death. Hence, where, during life, symptoms indicate an inflammation of a membrane, moderate in its degree, or of short duration, the marks of this may entirely escape the eye of the dissector, without casting doubt upon his previous judgment of the case. The severity of the sympathetic phenomena is not in any certain proportion to the severity of the original disease. Extreme violence, and even mortification may take place, without awakening much fever; while, in other cases, the sympathetic disease may be far more violent than the original. Thus, in the gout, an obscure irritation in the abdomen may produce an excessively violent one in a joint of the great toe; in children, a mild enteritis may lead on a mortal hydrocephalus, &c. &c. And the febrile excitement may be beyond the usual proportion, and wear the patient out, from a comparatively slight local disease; or, on the other hand, he may live for a length of time, suffering very little from severe local derangements.

Inflammations may terminate suddenly, by the natural or artificial restoration of a suspended secretion, or by the occurrence of a new phlegmasia in a favourable part of the body; they may produce death, either by mortal congestions in organs important to life, or by exhaustion of the vital powers from over-excitement; they may produce the *red hardening*, and become chronic, not preventing the continuance of life, if situated in organs not essential to its preservation; they may be followed by gangrene, which may or may not be mortal; or they may terminate by *resolution* or suppuration. Resolution is viewed by M. Goupil, as implying the secretion of pus, which is immediately re-absorbed, and conveyed out of the body by the excretions.

Of these terminations, suppuration and the red hardening are the only ones which are capable of existing in a chronic form; and they tend to confound themselves with the sub-inflammations.

The chronic phlegmasiæ were ill understood before the time of professor Broussais; who has assumed them as the basis of his great work. They are identical in their nature with the acuter kinds; and the red hardening, (as hepatization of the lungs, the red thickening round old ulcers, &c.) may be assumed as a fair parallel to what Hunterians call the adhesive stage of phlegmonous inflammation.

Of sub-inflammation. What are called *organic diseases* are in reality the last stage of an irritation of long continuance, but which, from its seat in the white capillaries, is, at first, little capable of disordering the general sympathies of the body. Cancer, tubercles, &c., only exist after a sub-inflammation has already endured for a considerable time. Irritations of this species may be either primitive, originating in the white capillaries in the first instance, or, as is far more frequently the case, secondary, and subsequent to actual red inflammation, generally of the chronic kind. Tubercles and scrofulous tumours are not the result of debility, but of irritation. Yet the effect of *temperament*, in this respect, is such as to account for and excuse this popular error. The *lymphatic* or *phlegmatic* temperament, or, what is nearly identical in its characters, that one commonly known and designated as the *scrofulous*, consists mainly in a predominance of the white capillaries, including the lymphatics, over the whole sanguineous apparatus—such subjects being pale, flabby, with large lymphatic ganglions, and a bulky cellular substance. There is here a real debility, or at least a deficient development, not situated, however, in the lymphatics, but in the heart and arteries. Languor prevails in the great viscera, from this cause; while the colourless portion of the capillaries possesses a greater development in size, and a higher vital activity than in ordinary men. In this apparatus, then, there is a stronger tendency to diseases of irritation, simply from its greater susceptibility of action; and if, *during a state of health*, we could promote a greater size and strength in the organs which employ red blood, and particularly in those which circulate it, we should prevent or diminish the tendency to lymphatic diseases. A kind of antagonism exists

between the red and white vascular system; and one is enlarged at the expense of the other.

Where local irritation, however, actually exists, we find a very different state of things. Irritation in the white capillaries is, like all other irritations, an action of increased vitality, and mostly and mainly depends upon a similar state of the blood vessels of the same part. It is, therefore, to be met by depletion, revulsion, and the other means employed in the cure of sanguine irritations, subject to qualifications which arise from its peculiar situation and circumstances.

Our author treats at some length on cancer in particular. The alleged causes of cancer are all irritants: such are contusions and undue pressure on the breast, the causes of chronic inflammation of the same part in child-bed, &c.

There is furnished, from the thesis of M. MARECHAL, an account of fifteen cases, designed to show the usefulness of leeches in cancer. Of these, four were cases of scirrhus, presenting all the usual characters; one, an ulcerated cancer, with reverted edges; four, of the description frequently called cancerous ulcers, commencing, for example, with a wart; and three, of a more doubtful character. In another case, an ulcer originally of a different appearance,* seemed to have been invested with the cancerous peculiarities, by the injudicious use of stimulants, and subsequently deprived of them, and healed, under a treatment embracing emollients and the use of leeches. In two others, the patients were cut off, during the progress of the cure, by severe attacks of erysipelas; and this circumstance giving an opportunity of dissection, those parts which had lost their cancerous characters during life, were found divested of them when their substance was examined; while, in the other parts, the peculiar structure was distinctly visible. These circumstances were uncommonly interesting, as affording a confirmation of the judgment already formed of the case.

In several of these cases, we have the highly respected authority of professor LALLEMAND. The *symptoms* of cancer are so obviously of a highly irritative kind, as to need no discussion.

Hæmorrhagies, not the result of wounds or ulcerations, arise

* Called *venereal*, from its occurring twelve years after a gonorrhœa.

from a true irritation, less in degree than that constituting ordinary inflammation. For the fuller development of this subject, we refer to a paper by Dr. CONDIE, embracing a view of the doctrines of M. BROUSSAIS, and inserted at p. 236 of the 3rd volume of this Journal, relative to hæmorrhagies.

Febrile ecchymoses and petechiæ do not arise from debility, but from an actual irritation at the spot; and a proof of this is found in the circumstance, that they disappear with the circulation, in articulo mortis. The same may be said of scorbutic petechiæ and hæmorrhagies; although this by no means forbids the existence of debility in other parts of the body.

Of Nervous Irritation.—In all irritations, Dr. BROUSSAIS assumes, as is usually done,* that the nervous fibrils of the part are primarily affected; and frequently extensive sympathies are set in motion, without any phlegmasia of the part irritated being the consequence. Wherever inflammation is developed, the malady is considered as falling within the class already described; and, from this cause, epilepsy and various other affections, commonly classed as neuroses, are viewed, in most cases, merely as inflammations of the brain, accompanied by the spasmodic motions, &c. as symptoms. Nor is this all: the greater part of the visceral neuroses, (many dyspnœas and coughs, palpitations, globus antiperistalticus, spasms of the intestines, hysteria, nymphomania, &c.) depend, in reality, on a chronic phlegmasia of some internal part; and even the non-inflammatory nervous irritation is, by continuance, extremely apt to interest the vessels, and become itself converted into an inflammation. The class of neuroses thus

* This, we would remark, is entirely hypothetical, though a doctrine so generally received. We would not occupy the text with the discussion; but will here append two reasons for doubting it, and disbelieving its necessity as a mode of influencing the capillaries.

1. Nervous fibrils have *never been detected* in the capillaries, nor in or along the texture of the small arteries of the extremities. The proper nerves of the arteries of the limbs terminate, to all human vision, at a few inches below the shoulder and hip; and the smaller branches in the limbs are remarkably exempt from nerves, seldom receiving a minute twig from the adjacent parts! (*Vide Bichat, Anat. Generale.*)

2. That irritations can take place, without any nervous agency, is demonstrated by the occurrence of these processes in vegetables, and in the radiated animals. Familiar examples of this may be found in the growth of plants, and the rapid maturity of fruits and flowers, under the influence of the sun; all of which is performed by vessels without nervous intervention.

becomes of less importance, or, to speak more correctly, these diseases should be uniformly studied in connection with the phlegmasiæ.

Of the remainder of our subject, we omit the *treatment*, as not admitting of the rapid and cursory description which we have already given. It is here, too, that Dr. Goupil would think us most heretical; and we could not, in conscience, let the subject pass without a discussion. For the subject of *intermittence* in irritation, too, the reader may be referred to a review of the fine work of Mongellaz, in our first volume, p. 323. The little space yet left us, will oblige us to hurry over the important analysis of the *sympathies* in a still more hasty manner than what we have already penned.

The general symptoms of febrile and most other diseases may be analyzed and explained with remarkable neatness and beauty, by the doctrine of sympathy, as professed by the school to which M. Goupil has attached himself. Those various characters which are frequently cited as proofs that fever is a "general disease," all consist of irritations of particular parts of the body, and never of the whole body at the same time. Thus, in ordinary fevers, the debility is in the operations of the voluntary muscles, while the heart is excited into unusual activity, and the organic functions carried on in the brain are exalted to a high degree, at the expense of the mental powers. Thus a greatly increased circulation takes place, with heat and pain in the head during life, and redness and effusion after death. At the same time, all these symptoms arise from an irritation previously existing in some other part of the body, most usually in the stomach. Of the febrile state, however, we shall shortly have to speak again. Sympathies are not actions in themselves morbid, but are merely exaggerations of the natural vital relations of the different parts of the body; being only owing to an undue provocation of powers which belong to the body in health. The word sympathy is here used exclusively to express the morbid state; it is equally applicable to the healthy influences which extend through the body; though, by the school of Dr. Broussais, it is more generally used as we have mentioned.

The activity of sympathies is extremely various; sometimes being, as is well known, excessively violent from a trifling cause,

while, in other instances, death has taken place from the most terrific morbid changes of an important organ, and neither the pulse, the heat of the surface, nor the operations of the mind, have betrayed any very perceptible modification by them.

The French authorities quote MORGAGNI for cases of mortification of the stomach illustrating this point. We would cite the well known "*walking cases*" of yellow fever. Here an unquestionable gastritis of great violence takes place, runs its course for two or three days, producing the fatal black vomit, and death; and the patient, during all the time, is hardly perceived to be unwell. We well remember an instance of this kind, in 1820, in which, during three days, the patient's pulse was repeatedly felt by the physician at the time attending his sister, and the individual was judged to be only suffering from depression of mind. Two hours of visible illness precipitated him out of existence.

Sympathies vary according to the intensity of the original impression; according to the susceptible part of the body first stimulated, and finally according to the constitutional irritability of the subject of them. These differences are considered sufficient to account for all the varieties of cases known.

Dr. GOUPIL distinguishes between sympathetic and merely *symptomatic* affections, alike arising out of an original disease. The oppression of breathing which is produced by a dropsy of the belly or thorax is mechanical: this, then, is symptomatic, but not sympathetic. Again, when the sympathetic irritation acquires a certain degree of intensity, it ceases to be a symptom, and constitutes a secondary disease. Thus in the early part of gastro-enteric fevers, there is frequently acute pain in the lower part of the forehead: and this is symptomatic. But if, on the other hand, actual inflammation of the brain supervene, the functions of the mind are sensibly disturbed, and effusion or thickening of texture, takes place in the brain or meninges, this, then, is no longer a symptom, but a secondary disease. We apprehend that the distinction here expressed is hard to be accurately drawn; as it is highly probable that in every febrile head-ach there is a more active circulation of blood through the parts affected with pain than in the natural state; and at what point is this sufficient to convert the symptom into the secondary disease?

The new irritation thus effected is of exactly the same nature

with that which would have been produced by the direct application of a stimulus to the part which is now sympathizing. The encephalitis which we have just been proposing as an example, is really the same disease which might have been produced by a blow, or by the excessive heat of the sun.

Diatheses to particular diseases, are owing, according to Dr. Broussais, to a similar increase of vital activity pervading the different parts composed of a similar tissue or texture. This may arise, first, from a constitutional predominance, in vital activity, and very frequently in size, of that particular texture in the body of the individual; and, secondly, from a disposition in parts of the same structure to sympathize with each other, and of course to take on similar actions, as the undue excitement of any tissue always shows itself possessed of the same peculiar characters. Hence, a person who already suffers from a scrofulous inflammation or a lymphatic ganglion, is the more predisposed to a recurrence of the complaint in a remote part of the body, at once from the greater tendency to it which all the white capillaries of his ganglions may be presumed to have possessed, and from the sympathy of new parts of the same structure with those previously affected.

As the sympathies often afford far more striking means of discovering a disease than the local symptoms, we may easily judge of the importance which a careful study of them possesses for the purposes of practice, even independently of the beautiful manner in which they explain various anomalies and unintelligible groups of symptoms which perplex the nosological student. Head-ach is frequently the symptom first discovered in derangement of the stomach; and an obscure, slow disturbance of the circulation, that of a chronic inflammation of an abdominal or thoracic viscus, &c.

In the state which is familiarly known to us by the name of fever, M. Broussais conceives that the principal symptoms arise from irritations, existing at the same time, and re-acting upon each other by sympathy in the *brain*, the *heart*, and the *stomach*, including the upper bowels. These three great centres of vital action are in an equal degree those of sympathy; and it is difficult to point out a case of disease extensively awakening the sympathies, in which they are not interested. In numerous cases, these different but coinciding irritations arise in the organ last named; and the

case is then termed a *gastro-enteritis*, unless indeed the secondary irritation of the brain amount to inflammation, in which case, *encephalitis* or *cerebritis* is added to the original malady. Inflammation of the *heart* is more rare. Fever is thus an irritation, not of the whole system, but of these three organs; and very frequently arises from inflammation of the stomach and bowels. Yet fever may arise, as is well known, from inflammation of many other parts of the body. Thus "symptomatic fever" is a phrase very common in our mouths; and many cases denominated fevers, and treated as such, have been unquestionably inflammations of the brain, peritoneum, &c. In these instances, the three great sympathetic centres of which we have already spoken are usually all interested; and this is the reason why gastro-enteritis is considered as involved in such a great variety of cases. The further discussion of this point we must avoid; as the subject of itself is sufficiently copious for the most prolonged consideration.

A number of our author's pages are occupied with the subject of *metastases* and *crises*. We lament that we cannot expatiate on this point; as our limits permit such an extremely small space for the present rather retrospective article. It is, however, of the less consequence, as it is addressed mainly to the pupils of the school of PINEL, the votaries of natural cures and of the *médecine expectante;* a doctrine which prevails but little in our country. But few American physicians are found who depend on *crises* for the patient's recovery, or expect them to eliminate morbific matter. We could wish to abridge some more of the subject of metastases; as it is of greater value in the practical discrimination of diseases. At page 142, are expressions which convey a somewhat different idea of *symptoms* from those which we have already quoted. They are here sympathetic irritations less strong than the original malady. If the secondary irritation become stronger than its parent, *vehementior obscurat alterum*, and a metastasis takes place, curing or diminishing the previous disease. We apprehend this to be less generally the rule than is here expressed. Metastases, of course, take place to parts endued with an unusually high, and not a low, state of vitality: the part must be unusually subject to active irritation. It is hence improper to term such "*weak parts.*"

One metastatic or inverse sympathy, it is important to mention here. We have already spoken of an antagonism between the organs of sanguine circulation and the white capillaries. Another exists between the former and the nerves. In violent inflammations, in those of organs richly endowed with nervous terminations, or in those of great extent, the mind and muscles undergo a great degree of hebetude. The operations of the former become slow and difficult, or are interrupted; and the latter are overpowered with lassitude. This is a fruitful source of the idea of debility in fevers: the debility is real, but, far from being general, is owing to a severe over-excitement of the powers of life in another part.

We are far from suggesting or wishing to make the impression that the above hasty sketch is a sufficient one of the *doctrines of irritation*. We earnestly recommend, to those who have access to them, the perusal of the original works on these subjects; and nothing but the necessity of the case induces us to be thus brief and incomplete. We have, however, endeavoured, with the exceptions already pointed out, to run through the whole subject.

C.

MEDICAL LITERATURE.

RETROSPECTIVE REVIEW.

ARTICLE XIV.—*Discourse upon the Institution of Medical Schools in America; delivered at a public Anniversary Commencement, held in the College of Philadelphia, May* 30 *and* 31, 1765, *with a Preface, containing, amongst other things, the Author's Apology for attempting to introduce the regular mode of practising Physick in Philadelphia.* By JOHN MORGAN, M. D. Fellow of the Royal Society at London; Correspondent of the Royal Academy of Surgery at Paris; Member of the Arcadian Belles-lettres Society at Rome; Licentiate of the Royal Colleges of Physicians at London and Edinburgh; and Professor of the Theory and Practice of Medicine at Philadelphia.—*Philad.* 1765. pp. 91. 12mo.

A Vindication of his Public Character in the station of Director-General of the Military Hospitals, and Physician in Chief to the American Army, anno 1776. By JOHN MORGAN, M. D. &c. &c. *Boston*, 1777, pp. 158. Pamphlet.

De Puopoiesi, sive Tentamen Medicum Inaugurale de Puris Confectione.—Edinburgh, 1763. 8vo. pp. 55.

THE history of Dr. JOHN MORGAN affords a striking example of the dangers and sacrifices to which men are subjected, when, acting under the impulse of an enlightened benevolence, they dare to oppose the barriers of their genius and courage against the encroachments of new, or the domination of ancient and established prejudices. Poverty, neglect, and contempt, or what to some minds is still worse, oblivion, are at least very common consequences of a liberal and exercised zeal for the public welfare. Yet being in "stripes often, and perils often", cannot extinguish or suppress the sacred fire of benevolence, which bountiful heaven hath kindled in the warm bosoms of some men; there are those,

who, to do good, will pursue the even tenor of their way like him so beautifully described by the Roman, whom

> Non vultus instantis tyranni
> Mente quatit *solida*.
> * * *
> Si fractus illabatur orbis,
> *Impavidum* ferient ruinæ;

nothing but death can conquer their indomitable desire of doing good to their fellow creatures: cotemporaries may affect to despise the talents and virtues which they cannot emulate or appreciate, but posterity often comes to do ample justice to him, whose whole life has been but a scene of privations and sacrifices; and it is perhaps in the distant prospect of a long deferred justification, that we must look for the source of that undying hope which sustains the good man who goes to the stake to justify his faith, or lingers out a more enduring and living martyrdom, rather than abandon what he conceives to be a wholesome and sound principle.

Great and good men have indisputable claims to the gratitude and veneration of posterity, and hence, we conceive ourselves to be discharging an important duty, in attempting to present to the readers of this journal, an account of Dr. Morgan's works, accompanied with such remarks as may be suggested by their perusal, and not failing at the same time to refer to such jejune and scattered documents as we have collected in reading, and in conversation with those who knew him personally. Even the perishable pages of a journal may serve at least as the temporary depository of the fragments of his biography, who was the unquestionable founder of American Medicine; should they be the means of rescuing his memory from the oblivion into which it seems fast sinking, by affording materials to the future historian of our science, our object will be fully attained.

Dr. Morgan was a native of Philadelphia, and "acquired the rudiments of classical learning at the Reverend Mr. Finley's Academy in Nottingham,"* then the most distinguished private seminary in the middle colonies. He was among the first pupils of the college of Philadelphia that received the honour of a degree.

* Dr. Rush's Eulogium.

Dr. RUSH says he began to study medicine while he was in the college, and that he graduated A. B. in 1757. This explanation we make lest there might be an apparent inconsistency in what he says below, as to the duration of his medical studies, and the date of his graduation, in the following extract, which furnishes us with an outline of his history previous to his appointment to a chair in the college, in May, 1765.

"It is now more than fifteen years since I began the study of medicine in this city, which I have prosecuted ever since, without interruption. During the first six years I served an apprenticeship with Dr. JOHN REDMAN, who then did, and still continues to enjoy a most justly acquired reputation in this city for superior knowledge and extensive practice in Physick. At the same time I had an opportunity of being acquainted with the practice of other eminent physicians in this place; particularly of all the physicians in the hospital, whose prescriptions I put up there above the space of one year. The term of my apprenticeship being expired, I devoted myself for four years to a military life, principally with a view to become more skilful in my profession; being engaged the whole of that time in a very extensive practice in the army amongst diseases of every kind. The last five years I have spent in Europe, under the most celebrated masters in every branch of medicine, and have spared no labour or expense to store my mind with an extensive acquaintance in every science that related any way to the duty of a physician, having in that time expended in the pursuit, a sum of money, of which the very interest would form no contemptible income." *Preface to the Discourse.*

He acquired a high character by his humanity and diligence in the army which was raised in the old French war; and Dr. RUSH, in his eulogium, brings the following strong evidence of MORGAN's worth:

"I well remember to have heard it said, that if it were possible for any man to merit heaven by his good works, Dr. MORGAN would deserve it for his faithful attendance upon his patients;"

meaning the sick and wounded under his care. Dr. RUSH also informs us, that he bore the double commission of lieutenant and surgeon in that war, but only acted as surgeon.

In 1759 he went to Europe, and seems to have travelled through Holland, France, Italy, and England, in company with Samuel Powell, Esq. a wealthy and distinguished citizen of Philadelphia, to whom he was subsequently indebted for many acts of kindness, and who never ceased to bestow on him the marks of a firm and well-founded friendship.

In London he attended the lectures and dissections of Dr. William Hunter, and consequently must also have known his celebrated brother, Mr. John Hunter. Two years were devoted in Edinburgh to the acquisition of knowledge, under the auspices of Cullen, the Munroes, Rutherford, Whytt, and Hope; and, after publishing, and publicly maintaining his Thesis *De Puris Confectione*,* he was admitted to graduate in that University. He afterwards devoted a winter at Paris, to attendance on anatomical lectures, and to dissections under M. Sue; and his admission into the academy of surgery, was the reward for a beautiful injection of a kidney that he had the merit of preparing. Such a course of studies pursued by a studious man, such as Morgan always was, could not fail to imbue his mind with a greater extent and variety of useful knowledge, than was attained by most of his cotemporaries; since few American physicians of his time could be said to "spare no pains or expense" in this pursuit.

In his journey to Italy he passed an hour with Voltaire at Geneva; and at Padua he seems to have gained old Morgagni's whole heart. Dr. Rush says,

"This venerable physician, who was the light and ornament of two or three successive generations of physicians, was so pleased with the Doctor, that he claimed kindred with him from the resemblance of their names, and on the blank leaf of a copy of his works which he presented to him, he inscribed with his own hand the following words:—*Affini suo, medico præclarissimo*, Johanni Morgan, *donat auctor.*"

These volumes are now in the library of the College of Physicians of Philadelphia, a present from the Doctor.

The honours paid him by foreign societies, the excellent character he had acquired at home by his conduct as army surgeon, and the warm friendship of his fellow traveller, Samuel Powell, Esq. together with the commendatory letters of Dr. Fothergill, Dr. William Hunter, and others, gave him considerable *eclat*. On his return to his native city, he was already famous; and we have been told by a venerable citizen, who still remembers very dis-

* In his dissertation, after reviewing the opinions of many eminent physicians on the nature of pus, he comes to the conclusion that the fluid is proved by an operation of the animal becoming very analogous to *secretion*, or indeed is a peculiar secretion from the living blood, made by the vessels in certain states of inflammation; and it is probable that he was the first to announce this doctrine. We have no space here for an examination at length of his arguments.

tinctly the dash of his *debut*, that he excited the wondering gaze of the people, by carrying a silk umbrella, a novelty and mark of effeminacy so unheard of in those days of *friendship* and *plainness*, that my informant recollects calling the family to the window, in order that they might witness the novel spectacle. We mention this to show there was something uncommon in his turn of mind, as we conceive it requires something peculiar to engage a man to attract, by any oddity of dress or deportment, the attention of his fellow creatures: MURAT was as remarkable for the strangeness of his costume as for his charges at the head of his cavalry; a man would look as odd without a long beard at Mecca, as he would with one at Paris, and the commonalty at both those places will generally be found among the conformists of custom: had the Doctor been like other people he would have preferred one of the heavy, glazed, roof-like umbrellas, which, though less ostentatious and convenient, would have been more conformable to the usages of the people.

While absent from home, enjoying the precious advantages of systematic instruction, whose "appliances and means" he found so powerful in facilitating his progress, his heart expanded towards his native country, and he resolved to bestow on it a durable benefit, by establishing a regular medical school in Pennsylvania. That he formed this design abroad is evident, not only from the commendations which he brought in its favour from distinguished foreigners, but from the "Address" itself, which, as he tells us in the dedication, was written at Paris, and submitted to the criticism of his accomplished friend POWELL.

Accordingly, in the month of April, 1765, he arrived at Philadelphia, and on the 3d of May following was elected Professor of the Theory and Practice of Medicine in the College of Philadelphia, an institution, which, dating its rise from the year 1749, had already, under the auspices of its patrons, attained to a considerable reputation and usefulness in the province.

The discourse, the title of which is placed at the head of this article, was delivered at the public commencement, in great form and ceremony, the speaker appearing in flowing robes, so as to give to his oration as much of the ex cathedra tone as possible. A venerable gentleman who graduated on that occasion, informed the writer of this, that there was a very great concourse of respectable citizens to witness the performances. The com-

mencement was held in the north end of the building, now called the Academy, near the corner of Fourth and Arch streets. It was then a spacious room, having a deep gallery on three of its sides.

We shall insert a copy of the advertisement announcing the enterprise which MORGAN had now commenced; it has a claim to the right of record in our department of Medical Literature, which we have no disposition to resist.

"*College of Philadelphia, May 3rd*, 1765.

"The public Commencement in this College is to be on Thursday, the 30th of this inst. May; and the exercises now preparing, it is hoped, will be both interesting and entertaining. The young gentlemen residing at a distance from the College, who are standing for their Master of Arts Degree, and propose to take the same, are requested to attend some days before the Commencement, that their names may be inserted in the Mandate, and other necessary preparations made.

"At a meeting of the Trustees held this day, JOHN MORGAN of this city, M. D., Corresponding Member of the Royal Academy of Surgery at Paris; Licentiate of the Royal College of Physicians at London, and Member of the Arcadian (Belles Lettres) Society at Rome, was unanimously elected Professor of the Theory and Practice of Medicine in the College of Philadelphia. At the ensuing Commencement he will deliver an address, (which will be soon afterwards published,) in order to show the expediency of instituting a medical school in this seminary, and containing the plan proposed for the same: in which there will be room for receiving professors duly qualified to read lectures in the other branches of Medicine, who may be desirous of uniting to carry this laudable design into execution. *Dr. Morgan's plan* has been warmly recommended to the Trustees by persons of eminence in England, and his known abilities and great industry give the utmost reason to hope it will be successful and tend much to the public utility."*

Accordingly, Dr. MORGAN gave his address at two sittings, one on Thursday 30th, and the other on Friday 31st, which is mentioned as follows in the published record of the commencement days. After noticing other exercises by the candidates, and the first part of the address, the Gazette says,

"Dr. MORGAN then finished the remainder of his oration, and as it is soon to be printed, we would not wish to anticipate the judgment of the public, and shall only say, the perspicuity with which it was written and spoken, drew the close attention of the audience, and particularly of the gentlemen of the faculty of physic."†

* Pennsylvania Gaz. May 9, 1765. † Pennsylvania Gaz. June 6, 1765.

The oration was not published till some time afterwards, on account of unavoidable delays, to which the Doctor alludes. It is first announced as just published, in the Gazette of Sept. 5, 1765. This delay enabled him to write a Preface and Apology, which extend through twenty-six pages of his book. We shall now endeavour to make our readers acquainted with some parts of this apology, not the least interesting portion of the whole publication.

Founding his views of duty, not merely on the law that he who provideth not for his own is worse than an infidel, he saw the beneficial consequences which would be likely to accrue to the character of his vocation, by separating it into departments, each of which could be more successfully cultivated, and carried to a higher degree of perfection and availableness for the common weal, if occupying the single and total scope of a particular class. He could not have been unaware of the risk he incurred, even by the indication of a wish to alter the ordinary and settled routine of medical practice as established in his native city. Yet, stanch to the suggestions of duty, he declared his views and intentions in the following bold terms.

"This [delay] has determined me to commit to the press, the plan of practice by which I design to regulate myself as much as possible; and to deliver my sentiments very briefly on the expediency of a regular and distinct practice in the several branches of medicine. The public will then be able to judge more clearly of the propriety of those measures which, from a *full persuasion* of their great utility, I venture to recommend."

"First, I propose to confine myself in practice to those cases which belong most immediately to the office of physician: that I may prescribe for and attend such cases to greater advantage, I shall therefore avoid, all I can, interfering in the proper business of surgery, viz. manual operation."

"I do not mean, however, to refuse to inoculate for the small pox, where my patients, or their friends, object to employ another hand to make the incision. This may frequently happen, although there is no more difficulty or art required in it, than in cutting an issue or inserting a pea, or than in cupping or bleeding."

"Secondly, I propose in such cases as shall be required, to attend in consultation with other physicians, on the same terms as those of character enter into consultation with one another."

"Thirdly, I shall give my opinion in writing, on the complaints of persons at a distance from Philadelphia, whenever the history of the case is properly drawn up and transmitted to me for advice."

"Fourthly, in such cases of surgery as require consultation, I am willing to attend, prescribe, consult, or advise, but not to perform any operation myself, or dress any wound." *Preface.*

In order to enable him more completely to carry into execution this bold design, he says, "Mr. DAVID LEIGHTON, a gentleman of abilities and integrity, educated in Great Britain both in Pharmacy and Surgery, has accompanied me hither. To him I send to make up my prescriptions." His patients, however, were to be "allowed to choose any other apothecary, or surgeon, for the operative part;" and he further informs us, that Mr. LEIGHTON had brought out a complete assortment of the best medicines, prepared by the Messrs. Bevans of London; these medicines, together with surgical operations, were to be the subjects of distinct charges by and for Mr. L.

"As to fees," Dr. MORGAN proposed to make them moderate; for example—

"It is true that upon my first arrival I expressed my desire of being paid for a certain number of visits at a *pistole* the first visit, as a *retaining fee*, and a dollar for every visit afterwards. It was not my intention to require more than one fee per day, although I might wait on the patient oftener; nor yet every day that I visited once, where a disease of a lingering nature, or requiring particular care, would render my attendance expensive. A retaining fee I expected to receive from the rich, not from the poor; and had firmly resolved in no case to receive more fees than sufficient to pay me for the value of my time, and trouble of attendance."

In another place he says,

"Instead of making a charge of fees, I willingly leave to the patients themselves to give what they please, upon my dismission from further attendance, or as soon after their recovery as shall be thought convenient, without specifying any demand, unless where patients particularly require it. This I look for to prevent the necessity of making a *book charge of fees, which is never done in any liberal profession.*"

The want of good opportunities of making his plan known, had in some measure frustrated his "good intention." This, and the advice of his friends, had induced him to resolve, that he would make some modification of his design, so as to adapt it better to the "customs and circumstances of the people." Notwithstanding, he observes,

"The preceding plan I have ever since constantly followed, to my entire satisfaction, and I hope to that of my patients; and also, in most instances, I have found their generosity has much exceeded my expectations."

He fortifies with many judicious observations, his opinion of the utility of separating the duty of the physician from that of the apothecary. From among these, we cannot omit the following.

"Nobody I believe will deny that the practice of rating medicines, at such a price as to include the charge for medicines and attendance, is liable to gross impositions on the part of ignorant medicasters, too many of whom swarm in every city. Patients who are kept in ignorance of what price medicines are, considered separately, and what is the value of physical skill and attendance, naturally think the original cost of medicines, which are comparatively cheap, to be very dear, and *undervalue* the skill of a physician, his toil of study, and his expense of time and money in his education, which have often amounted to very large sums, and to many years spent abroad in quest of knowledge, as if they were of no consideration.

"The levelling of all kinds of practitioners so much with illiterate pretenders, who have art enough to gain employ, however ill qualified in that of healing diseases, has a tendency to deter persons, otherwise of just and liberal sentiments, from putting themselves to a further expense to gain knowledge, than what is sufficient to make money. This is to make a vile trade of physic, instead of a noble profession; which as it certainly is, so it ought to be esteemed."

Under the head of "the advantages of a separate and regular practice of physic, surgery, and pharmacy," he not only rebuts the objections which some had made to his plan, but plies his arguments with great naiveté and vigour, to show the propriety of his opinions.

"It is not only expedient," says he, "but necessary that a physician should have a general and extensive knowledge of the whole art, and be acquainted with the principles of every branch of his profession. Thus the general of an army should be acquainted with every part of military science, and understand the whole detail of military duty, from that of a colonel, down to a private sentinel: but there is no need that he should act as a pioneer, and dig in a trench.—No more then is a physician obliged from his office to handle a knife with a surgeon; to cull herbs with the botanist; to distil simples with the chymist; or compound drugs with the apothecary, &c.

"But practitioners in great business never do, or can do, the business of an apothecary in this place, themselves: they have apprentices for the purpose. After visiting the sick, do not their apprentices make up their prescriptions? I would ask, is not an apothecary, thoroughly acquainted with the art of compounding and making up medicines, as skilful in it as an apprentice? Is not a man educated in the profession, to be trusted in preference to one who is only learning that business? or has the master, who may be called from place to place, to attend other cases of surgery, or see other patients, always time to wait for medicines to be made up under his eye?"

We shall close our account of the preface by quoting its con-

cluding paragraph, fit to be engraved, in honour of his memory, on the tomb stone of this high-minded and enthusiastic advocate of medical improvement. Some had charged him with rating too high the difficulties and expense of a medical education, whereby it was feared he might deter, rather than encourage students to perfect themselves in medical science. To them he replies,

"Nobody who is anxious to be skilful in the divine art of healing, will be a niggard of the necessary trouble and expense of rendering himself intelligent in every thing his profession requires he should know. Whoever is sparing of these, has no cause of complaint, if he is rewarded only according to his merit, *unless he would invert scripture, and the laws of reason,* and casting his eyes on those who have sowed plentifully in knowledge, and reaped but little pecuniary advantage from thence, think, from sowing sparingly, he has a better title to expect that his ignorance should be rewarded with a bountiful harvest."

Having followed our author through his preface and apology, yet omitting many agreeable parts of it, we shall proceed to observe that he commenced his course of lectures in conjunction with Dr. SHIPPEN, who was elected professor of anatomy and surgery in the college of Philadelphia, on the 17th day of September, A. D. 1765.

The following advertisement relating to the first collegiate course of medical instruction in the new world will not be considered out of place in a review of the Doctor's address. We have extracted it from the Pennsylvania Gazette.

"As the necessity of cultivating medical knowledge in America is allowed by all, it is with pleasure we inform the public that courses of lectures on two of the most important branches of that useful science, viz. anatomy and materia medica, will be delivered this winter in Philadelphia. We have great reason, therefore, to hope, that gentlemen of the faculty will encourage the design, by recommending it to their pupils, that pupils themselves will be glad of such an opportunity of improvement; and that the public will think it an object worthy of their attention and patronage. In order to render the courses the more extensively useful, we intend to introduce into them as much of the theory and practice of physic, of pharmacy, chemistry and surgery as can conveniently be admitted. From all this, together with an attendance on the practice of the physicians and surgeons of the Pennsylvania hospital, the students will be able to prosecute their studies with such advantages, as will qualify them to practise hereafter with more satisfaction to themselves, and benefit to the community. The particular advertisements inserted below, specify the time when these lec-

tures are to commence, and contain the various subjects to be treated of in each course, and the terms on which the pupils are to be admitted.

WILLIAM SHIPPEN, M. D., Professor of
Anatomy and Surgery in the College of Philadelphia.
JOHN MORGAN, M. D. F. R. S., and Professor
of Medicine in the College of Philadelphia."

The particular advertisements referred to, are the announcements of the respective courses of lectures: Dr. SHIPPEN's to begin Thursday, the 14th of November, 1765; to consist of about sixty lectures, comprising a series of demonstrations on the recent subject, surgical operations on the same, a course of exercises in bandaging, and directions on midwifery practice. Each pupil to pay six pistoles, and those who attended the hospital to pay six pistoles to that charity.

There is a curious appendage to this advertisement; Dr. SHIPPEN takes occasion in it to declare the falsehood of a report, that he had taken up the bodies of persons interred in the church burial ground.

"The Doctor with much pleasure improves this opportunity to declare, that the report is absolutely false, and to assure them (the public) the bodies he dissected were either of persons who had wilfully murdered themselves, or were publicly executed; except now and then one from the Potters-field, whose death was owing to some particular disease, and that he never had one body from the church, or any other private burial place."

The other advertisement announces Dr. MORGAN's course; to commence on Monday, the 18th of November, to be given three times a week, at the college, viz. Monday, Wednesday, and Friday, at 3 P. M., to last between three and four months; price four pistoles. We have no room for further particulars. His scope was a wide one, however, embracing perhaps more topics than could be successfully handled in so short a period.

We shall now proceed with the introductory lecture, which, after a few general and preliminary remarks, comprising a rapid sketch of the departments of medical science, as Anatomy, Surgery, Practice, &c. furnishes many excellent and judicious observations on the propriety of an attempt to establish a regular medical school in Philadelphia; a clear exposition of the many advantageous circumstances available to that end, growing out of the eminent abilities of the cotemporary practitioners, as BOND, CADWALLADER, SHIPPEN, &c.; the opportunities of acquiring clinical

instruction in the Pennsylvania hospital, the flourishing state of literature in the college, and finally the beauty and extent of the city, as well as its central position in relation to the sister colonies.

"The scheme of establishing medical lectures, which I now subject with all deference to your consideration, has been communicated to some very competent and unbiassed judges in England, who not only deem it practicable, but a laudable and useful enterprise. The great and well known Dr. FOTHERGILL, the justly celebrated Dr. HUNTER, the learned Dr. WATSON, men distinguished for their superior knowledge in literature, and particularly eminent in every thing which relates to medical science, have esteemed the improvement of such knowledge amongst us worthy of notice, and the institution of lectures in every branch of Medicine as deserving the patronage of all who wish well to arts and sciences."

"It is with the highest satisfaction I am informed by Dr. SHIPPEN, Jun., that in an address to the public as introductory to his first Anatomical Course, he proposed some hints of a plan for giving Medical lectures amongst us. But I do not learn that he recommended at all, a collegiate undertaking of this kind. What led me to it was the obvious utility that would attend it, and the desire I had of presenting, as a tribute of gratitude to my *Alma Mater*, a full and enlarged plan for the institution of Medicine in all its branches, in this seminary, where I had part of my education, being amongst the first sons who shared in its public honours. I was further induced to it from a consideration, that private schemes of propagating knowledge are unstable in their nature, and that the cultivation of useful learning can only be effectually promoted under those who are patrons of science, and under the authority and direction of men incorporated for the improvement of literature."

The reader will have perceived above, that Dr. MORGAN claims the honour of first conceiving, as well as maturing and presenting a plan for the foundation of medical schools. He acknowledges that Dr. SHIPPEN had already given courses of anatomical lectures, and had proposed "hints of a plan for the institution of lectures," but without any design of a "collegiate undertaking." Far be from us the wish to take from the memory of Dr. SHIPPEN one single leaf of that hard earned wreath, which we are sure will be, as it has been, voted to his immortal memory; immortal we may be permitted to call it, because the history of American Medicine can never perish, and while that remains, SHIPPEN, one of its founders, and illustrators, will live in the grateful remem-

brance of the learned and the good. SHIPPEN's glory is ascertained, and we cannot be deemed officious, if we attempt to "drag up the drowned honour" of his equal in learning, his ardent and almost forgotten associate in the high cause of our noble profession.

The minutes of the University of Pennsylvania contain many documents which relate to this part of our Medical history. The following letter from THOMAS PENN, Esq., one of the proprietors, is transcribed from them.

"A Special Meeting of the Trustees, May 3rd, 1765. Present, &c. &c. A letter from the Hon. THOMAS PENN, Esq., was read, viz.

"*Gentlemen*—Dr. MORGAN has laid before me a proposal for introducing new professorships into the college for the instruction of such as shall incline to go into the study and practice of Physic and Surgery, as well as the several occupations attending upon these necessary and useful arts.

"He thinks his scheme, if patronized by the Trustees, will at present give reputation and strength to the institution; and though it may for some time occasion a small expense, yet after a while it will gradually support itself, and even make considerable additions to the academy funds.

"Dr. MORGAN has employed his time in an assiduous search after knowledge in all the branches necessary for the practice of his profession, and has gained such esteem and love from persons of the first rank in it, that as they very much approve his plan, they will from time to time, as he assures us, give him their countenance and assistance in the execution of it.

"We are made acquainted with what is proposed to be taught, and how lectures may be adopted by you; and since the like systems have brought much advantage to every place where they have been received, and such learned and eminent men speak favourably of the doctor's plan, I could not but in the most kind manner recommend him to you, and desire that he may be well received, and what he has to offer be taken with all becoming respect and expedition into your most serious consideration; and if it shall be thought necessary to go into it, and thereupon to open professorships, that he may be taken into your service.

"When you have heard him, and duly considered what he has to lay before you, you will be best able to judge in what manner you can serve the public, the institution, and the particular design now recommended to you.

"I am, Gentlemen, your very affectionate friend,

"THOMAS PENN.

"To the Trustees of the College, &c. of Philadelphia."

London, Feb. 15th, 1765.

There was also another letter from JAMES HAMILTON and the Rev. Mr. PETERS, to the same effect. Dr. MORGAN also handed in a "written proposal, setting forth his plan, and intimating his desire to be appointed Professor of the Theory and Practice of Physic."

"The above letters and proposals being duly weighed, and the trustees entertaining a high sense of Dr. MORGAN's abilities, and the honours paid to him by different learned bodies and societies in Europe, they unanimously appointed him Professor of the Theory and Practice of Physic in this College."

Dr. SHIPPEN arrived from Europe in May, 1762, as we find by reference to the eulogium pronounced by the late Dr. WISTAR, before the college of physicians. That professor states, "that when Dr. FOTHERGILL's anatomical paintings and casts came over as a present to the Pennsylvania Hospital,* that gentleman (Dr. FOTHERGILL) mentioned them in a letter to Mr. JAMES PEMBERTON," by which it appeared that he expected Dr. SHIPPEN would explain them. He mentions SHIPPEN's intention to give lectures; and says, "that he is well qualified; that he will soon be followed by an able assistant, Dr. JOHN MORGAN; and that if countenanced by the legislature, they will be very useful and erect a school of medicine." * * * "In the autumn of the same year, (1762) as soon as the season permitted, his first course of anatomy began. The introductory lecture was delivered in one of the large apartments of the State House; and many of the gentlemen of Philadelphia heard it with pleasure, but the number of students who attended his course, amounted only to twelve. *Such was the origin of our medical school.*"†

Dr. MORGAN was appointed 3rd May, 1765. The minutes of the college contain the following letter from Dr. SHIPPEN, which we shall copy in this place, that our readers may judge for themselves, after having all the elements laid before them.

The minutes are as follows:

"Sept. 23, 1765. A special meeting."

After other business was transacted, "Dr. WILLIAM SHIPPEN, jr. applied by letter as follows," viz.

* They are now kept in the Museum of the University, to which, with the rest of the collection, they were generously given by the managers of the hospital.

† Eulogium, p. 25.

"To the trustees of the college, &c.

"The institution of Medical Schools in this country has been a favourite object of my attention for seven years past, and it is three years since I proposed the expediency and practicability of teaching medicine in all its branches in this city, in a public oration, read at the State House, introductory to my first course of anatomy.

"I should long since have sought the patronage of the trustees of this college, but waited to be joined by Dr. MORGAN, to whom I first communicated my plan in England, and who promised to unite with me in every scheme we might think necessary for the execution of so important a point. I am pleased, however, to hear that you, gentlemen, on being applied to by Dr. MORGAN, have taken the plan under your protection, and have appointed that gentleman a Professor of Medicine.

"A professorship of Anatomy and Surgery will be gratefully accepted by, gentlemen, your most obedient and very humble servant,

Phila. 17th Sept. 1765. "WILLIAM SHIPPEN, JR."

"Which letter being read, the trustees, by a unanimous vote, appointed Dr. SHIPPEN Professor of Anatomy and Surgery in this Seminary."

We have found a curious advertisement by Dr. SHIPPEN, in an old file of the Pennsylvania Gazette, and shall not apologize for presenting it to our readers, since it is an historical document in relation to the rise of the obstetric art in America, and a manifest instance of that energy and decision which characterized him throughout.

"Dr. SHIPPEN, Jun., having been lately called to the assistance of a number of women in the country in difficult labours, most of which were made so by the unskilful old women about them; the poor women have suffered extremely and the little ones were entirely destroyed, whose lives might have been easily saved by proper management; and being informed of several desperate cases in the different neighbourhoods which had proved fatal to the mothers, as well as their infants, and were attended with the most painful circumstances, too dismal to be related; he thought it his duty immediately to begin his intended course of lectures on midwifery, and has prepared a proper apparatus for that purpose, in order to instruct those women who have had virtue enough to own their ignorance, and apply for instruction, as well as all those young gentlemen, now engaged in the study of that useful and necessary branch of surgery, who are taking pains to qualify themselves to practise in different parts of the country, with safety and advantage to their fellow creatures."

"The Doctor proposes to begin his course as soon as a number of pupils sufficient to defray the necessary expense shall apply. A course will consist of about twenty lectures, in which he will treat of that part of anatomy which is necessary to understand that branch, explain all cases in midwifery, natural, difficult, and præternatural, and give directions how to treat them

with safety to the mother and child; describe the diseases incident to women and children in the month, and direct to proper remedies; will take occasion during the course, to explain and apply those curious anatomical plates, and casts of the gravid uterus at the hospital, and conclude the whole with cautions against the dangerous and cruel use of instruments."

"In order to make the course more perfect, a convenient lodging is provided for the accommodation of a few poor women, who otherwise might suffer for want of the common necessaries on these occasions, to be under the care of a sober, honest matron, well acquainted with lying-in women, employed by the Doctor for that purpose. Each pupil to attend two courses at least, for which he is to pay five guineas. Perpetual pupils to pay ten guineas. The female pupils to be taught privately, and assisted at any of their private labours when necessary. The doctor may be spoke with at his house in Front-street, every morning, between the hours of 6 and 9, or at his office, in Letitia Court, every evening."

Dr. SHIPPEN had lectured on anatomy in 1762, 63, 64, and, as we here perceive, announced, in January, '65, a course of midwifery on a plan which deserves the character of great boldness, considering the circumstances of the population at that period, when male accoucheurs were never employed, except in difficult parturition, after the efforts of the priestesses of Lucina had been found unavailing; and we may remark by the way that it is asserted by Dr. WISTAR in his eulogium, that Dr. SHIPPEN, by his good conduct, did remove the prejudice against the employment of male practitioners in the first instance, and in the course of ten years obtained a full employment in midwifery practice. But to return from this digression. Dr. MORGAN arrived here in April 1765; on the 3d of May was elected professor of Theory and Practice, and delivered his discourse on the 30th and 31st of the same month; but Dr. SHIPPEN was not appointed to his chair until September of the same year, full three months after the foundation of the school had been established in a regular collegiate form by the active zeal of his rival.

What definite and precise intentions may have occupied SHIPPEN's mind, we cannot now know. It is probable that he only designed a private establishment, under the patronage of the college, for he does, when asserting that he and MORGAN had engaged to assist each other, mention, "that he should long since have sought their patronage," &c. It is manifest, that there was some want of candour on the part of MORGAN, when he adverts so slightly to SHIPPEN's private establishment. Be this as it may, it is

certain that a jealousy and ill-will soon arose between them, and occasioned a breach which, so far as we know, was never completely removed; and must have been much aggravated by MORGAN's cruel removal from the director generalship of the medical department of the army, by congress, in 1776.

This act occasioned the publication of his pamphlet, called "A Vindication," &c. the title of which is found at the head of our article. We shall not follow them in their unhappiness, occasioned by these dissensions; the evil which they thought of each other died with their bodies; the lasting benefits they conferred on science are extending farther and wider over their common country. Dr. MORGAN must be admitted to be the founder of the School of Philadelphia, neither will it be disputed that he was fully and ably seconded by Dr. SHIPPEN, without whose happy genius and resources he might in vain have attempted to rear that noble fabric.

On the 26th Nov. 1766, Dr. THOMAS BOND, whose name we have often heard reverently pronounced by Dr. RUSH, gave an introductory lecture to a course of clinical lectures in the Pennsylvania hospital, which, our readers will perceive, forms an original article of the present number of this journal. Dr. BOND, however, was never appointed to a professorship in the college.

Such was the state of the enterprise till January 26, 1768, when Dr. ADAM KUHN, the disciple of LINNÆUS, and the friend of WISTAR, was appointed to the chair of Materia Medica and Botany.

At the Commencement, in the year 1768, the degree of Bachelor of Medicine was conferred on JOHN ARCHER, BENJAMIN COWELL, SAMUEL DUFFIELD, JONATHAN ELMER, HUMPHREY FULLERTON, DAVID JACKSON, JOHN LAWRENCE, JONATHAN POTTS, JAMES TILTON, and NICHOLAS WAY. These ten bachelors were the first persons who ever received medical honours in an American institution.*

* We are indebted to Dr. Thomas T. Hewson, for the following extract of a letter addressed to his father, Mr. Wm. Hewson, by Dr. Morgan—the date is,

Philadelphia, Nov. 20, 1767.

I have twenty pupils this year, at about five guineas each: next year we shall confer the degree of Bachelor in Physic on several of them, and that of Doctor, in three years after. New York has copied after us, and have six Professors; three of whom you know, to wit. Bard, Professor of Physic; Tennent, of Midwifery; and Smith, in Chemistry; besides whom, are Dr. Jones, Professor of Surgery; Middleton, of Physiology; and Clossy, of

It was determined in May, (12th) 1767, that,

1. "*For a Bachelor's degree in Physic*, such students as have not taken a degree in the arts in any college, shall, before receiving a degree in physic, satisfy the Trustees and Professors of this college, of their knowledge in the *Latin language*, and such branches of Mathematics, Natural and Experimental Philosophy, as shall be judged requisite to a medical education. 2. Each student shall take at least one course in Anatomy, Materia Medica, Chemistry, Theory and Practice of Physic, and Clinical Lectures; and shall attend the Practice of the Pennsylvania hospital, for one year; and may then be admitted to a public examination for a Bachelor's degree, provided that on a previous private examination by the Medical Trustees and Professors, and such other Trustees and Professors as choose to attend, he shall be judged fit for a public examination, without attending any more courses in the medical school. 3. It is further required, that each student, previous to the Bachelor's degree, shall have served a sufficient apprenticeship to some reputable practitioner in Physic, and be able to make it appear, that he has a general knowledge in Pharmacy.

"*Qualifications for a Doctor's degree in Physic.*—It is required for this degree, that at least three years shall have intervened, from the time of taking the Bachelor's degree, and that the candidate be full 24 years of age; who shall also write and defend a Thesis publicly, in college, unless he should be beyond seas, or so remote on the continent of America as not to be able to attend without manifest inconvenience; in which case, on sending a written Thesis, such as shall be approved of by the college, the candidate may receive his Doctor's degree, and his Thesis is to be printed and published at his own expense."—*Minutes, &c.*

On the 1st of August, 1769, Dr. Benjamin Rush, to mention whose name is to declare what an accession of courage, talents and virtue was afforded to the cause, received the appointment of the Professorship of Chemistry; and we accordingly find, that in the same month, a full course of lectures was announced, as follows, in an advertisement, for a copy of which we are indebted to a friend.

Anatomy. Time will show in what light we are to consider this rivalship; for my part, I do not seem to be under great apprehensions. Dr. Shippen is Professor of Anatomy and Surgery with us; Dr. Bond gives Clinical Lectures in the hospital, and myself give lectures on the Theory and Practice of Medicine, and on Chemistry, till Mr. Rush returns to engage in Chemistry; and we hope Kuhn will be here next year, for Materia Medica and Botany: and a course of lectures, with experiments in Natural Philosophy, are given by our Provost to the medical pupils. Thus you see how we go on. My compliments to Dr. Hunter, and all friends. I remain, in haste, dear sir,

Your ever affectionate friend,

J. MORGAN.

"*College of Philadelphia, Aug.* 14, 1769.

"By the election of Dr. Rush, to be Professor of Chemistry in this college, the different Professorships originally intended in the Medical School are now filled up; and a complete course of lectures in the different branches of Medicine will be opened on Wednesday, the first day of November, viz.

Anatomy, Surgery and Midwifery, by	Dr. Shippen.
Chemistry,	Dr. Rush.
Materia Medica,	Dr. Kuhn.
Theory and Practice of Medicine,	Dr. Morgan.
Clinical Lectures at the Pennsylvania hospital,	Dr. Bond.

"Dr. Smith, Provost of the college, will give a course of lectures on Natural and Experimental Philosophy, for the benefit of the medical students. Dr. Kuhn will also give a course of lectures on Botany; to begin as soon as the season permits.

N. B. The Hon. Thos. Penn, Esq., one of the proprietors of this province, hath sent to the college, by Dr. Rush, a complete apparatus for chemical experiments."

Such was the inception of an enterprize, which, after the lapse of sixty-two years, has produced in the country, near twenty medical institutions for teaching the science; such was the fountain which, supplied by Morgan's genius and perseverance, now effuses its fertilizing streams of knowledge over a continent: Medical Schools flourish where the Indian cabin was, in his day, shaded by the primæval forest; and our young men, instead of crossing the Atlantic ocean to seek for the Temple of Apollo, now climb the Alleghany, to find his fane under the setting sun. The diligence with which medicine is taught, is attested annually by more than five hundred graduates, in twenty institutions, which are capable of imparting the most wholesome instruction to the rising and studious youth. Numerous periodical works, devoted to the improvement of the science, constantly tend to the elevation of the professional character and estimation; while societies without number, and, in many States, public laws sanction and uphold the philosophical cultivation of medicine, and reprobate and condemn the vile attempts of the empiric.

We will not be understood as asserting, that we are indebted for all these good things to Dr. Morgan: we doubt not, the United States would have had Medical Schools long ere the present day, had he never existed; but what gratitude, what perception of departed excellence, or admiration for living talents, can he possess, who would reason and feel in this manner! Dr. Morgan

was the FOUNDER of American Medicine: and he who in Greece and Rome would have had statues of brass and marble voted to his memory, has, in the one third part of a century, gone out of remembrance so completely, that of the many hundreds who partake of the benefits of his school, very few have ever heard his name.

Let us cite the following, to show how, with a spirit which seems to have transported him into distant futurity, he addressed the Trustees of the college in an appeal, which might almost be called prophetic.

"Perhaps this medical institution, the first of its kind in America, though small in its beginning, may receive a constant accession of strength, and annually exert new vigour. It may collect a number of young persons, of more than ordinary abilities, and so improve their knowledge as to spread its reputation to distant parts. By sending those abroad duly qualified, or by exciting an emulation amongst men of parts and literature, it may give birth to other useful institutions of a similar nature, or occasional rise, by its example, to numerous societies of different kinds calculated to spread the light of knowledge through the whole American continent, wherever inhabited."

Speaking of the love of fame, and a laudable ambition in connexion with this school, he pours forth the following high toned sentiments in a strain of rich and manly eloquence.

"These passions have, in all ages, fired the souls of heroes, of patriots, lovers of science; have made them renowned in war, eminent in government and peace, justly celebrated for the improvement of polite and useful knowledge. They have powerfully influenced the perfection of arts, the advancement of commerce, and the prosperity of cities. They have heightened the character of particular people to such a degree, as to make them regarded by other countries with admiration and esteem. Such I hope will be the consequence of your patronizing medical science in this place."

"The difficulties of executing the proposed plan are inferior, far inferior to the glory of being first in such an undertaking. What grand enterprise was ever accomplished without any difficulties? If we have but resolution to master those which obstruct our design, they will only serve to heighten the lustre of its achievement. Seize then the opportunity of executing a scheme so glorious in itself, and of such importance to this place; as you have given a beginning to the task, I doubt not to see it fully perfected in due time."

* * * * * * * *

"Oh! let it never be said in this city, or in this province, so happy in its climate, and its soil, where commerce has long flourished and plenty smiled, that science, the amiable daughter of liberty and sister of opulence, droops her languid head, or follows behind with a slow unequal pace. I pronounce with confidence this shall not be the case; but, under your protection, every useful kind of learning shall here fix a favourite seat, and shine forth in meridian splendour. To accomplish which may every heart and every hand be firmly united.

'Hoc opus, hoc studium parvi properemus et ampli,
Si patriæ volumus, si nobis vivere cari."—*Horace.*

We shall here close the "Address," with the remark that it ought not to be suffered to sink into oblivion, as is likely to be the case very soon from its rarity. If the London college of physicians thought it conducive to their glory to give to the learned world a splendid edition of the works of their immortal countryman WILLIAM HARVEY, what honour might not accrue to the directors of our medical school by a similar mark of respect to their father and founder! Copies of the address ought to be multiplied. It is among the most important of our historical documents. And among 15,000 physicians in the United States, how many know that it ever existed?

Dr. MORGAN's reputation preceded him, and the most extravagant expectations were formed of his healing powers, among the people of his native city. A venerable gentleman who knew him afterwards very intimately, told me that when he was first pointed out to him in the street, he considered it as a high privilege to say, "I have seen him." This eclat gave him at once an introduction into the best practice, and he acquired a large share of business; but the efforts he made to separate the practice from the pharmaceutical part of the profession gave great offence. Still, he persevered in them; and, as he informs us, received fees in cash agreeably to the custom of the London phycisians. His early cotemporaries, the BONDS, REDMAN, CADWALLADER, SHIPPEN, &c., would not fall into his views, and it was not until the beginning of the revolutionary war that they were adopted. This took place on the arrival of Dr. JOHN JONES, who coming here from New York, brought no medicines with him, and being soon afterwards invited to prescribe, sent his prescriptions to a druggist. Finding it to answer very well, he never took a *shop;*

as the doctor was physician to both WASHINGTON and FRANKLIN, he came rapidly into esteem. Dr. CHOVET, afterwards a very popular physician, came here also from the West Indies, about the same period, and adopted Dr. JONES' plan; the other physicians seeing the manifest advantages enjoyed by these gentlemen, adopted the same practice, and now no Philadelphia practitioner keeps an assortment of medicines for his own use, if we are correctly informed.

Had Dr. MORGAN succeeded in his design of introducing with the present usages of practice, his plan of receiving fees in hand, thereby obviating the necessity of making book charges, which he says, "is never done in any liberal profession," he would have left an heir-ship of the highest value to his successors; valuable, not merely in regard to its pecuniary features, but as abolishing the means, and the incitement to a great many acts, which always, and inevitably tend to depress the profession far below the standard of its intrinsic dignity and relative importance to other professions and callings. If the bar owes its ampler success and respect to any one circumstance, it is, to its rules on the subject of compensation—certainly not to its charities, or to constant obtrusion into the business and bosoms of the people. In our sister city of New York, we believe that the plan of dispensing from the physician's own supplies is still adhered to; with what benefits let her physicians decide. If Philadelphia presents advantages over her sister cities in point of medical institutions and professional usages; how much of these are owing to the entire separation of the distinct avocations of the physician and the apothecary? Unquestionably our medicines are more carefully and elegantly prepared than they can be, where only a modicum of pharmaceutical skill and aptness can be acquired. Our SMITHS, BROWNS, GRIFFITHS, and DURANDS, and many others, equally distinguished and to be relied on, for the perfection and science exhibited in their establishments, supply us with the choicest productions of the Parisian and English laboratories, with a celerity and in a variety which leave us nothing to desire on that head; while, freed from the embarrassments of the plaster pan and spatula, we have more time to devote to our patients, and more leisure for our studies.

We are fully aware of the difficulty, nay, the impossibility of

separating the offices of physician and apothecary in country practice, or even in that of the small towns of the United States, whence is derived a manifest augmentation of those onerous and responsible duties to which a country practice is necessarily subjected. It would be overweening and ridiculous, to expect a division of the professions among that active and valuable class of our brethren; we only regret that they have a harder task than those who reside in the midst of a dense population: but, in our larger cities, where abundant facilities are offered for effecting the division, we own we are surprised that it does not take place. It is very questionable whether the emoluments of the profession in those cities, where medicines are dispensed by the physicians, exceed those of gentlemen of the same standing, where the physician and apothecary exercise separate and independent functions. At least, there can be no doubt as to where the greatest comfort is to be found.

To Morgan we consider ourselves indebted for the separation of these professions; and if so, even our College of Pharmacy may be included in the list of benefits conferred by him on his country. That institution may be regarded as of the highest importance, not only in view of its scientific merits, but as the future and principal agent in the suppression of quackery, the growing vice of the United States, most of the emoluments of which pass through the hands of druggists and apothecaries. Should the establishment flourish as it may be expected to do, it will not fail, as it raises higher and higher the ethics of the profession, to engage apothecaries here in a fixed opposition to those scandalous impositions on the public credulity, which, as they would belie nature herself, as well as all philosophy, experience and observation, so they ought to be considered an unworthy source of riches to an educated and high minded class of people. We hope even to see the day when the College of Pharmacy shall attract to its lecture rooms, the worthy young men who shall enter on that business in the most distant States of the Union; and then we may expect to be no longer wounded and grieved with the display of articles, which, either possessing no active properties, abuse the confidence of the ignorant when needing the most powerful aid, or, on the other hand, precipitate, by their unsuspected violence, the morbid tendencies of an otherwise curable affection.

Dr. MORGAN continued to practise physic until the revolutionary war broke out, and was then appointed director general of military hospitals, and physician in chief to the American army. He joined General Washington at Cambridge, was with the army at Long Island, and present at the battle of White Plains. It is impossible not to admit, after a careful perusal of his Vindication, the title of which is to be found at the beginning of this article, that he was a zealous officer, and faithful in the discharge of his public duty; yet great clamours arose against him among the regimental surgeons, whom he accuses of the basest motives, (and in some instances convicts them,) of peculation and fraud. After struggling with many difficulties, arising out of the want of hospital stores of every description,* the wretched arrangements of his department, which never was half strong enough, and the bitter opposition of his enemies, Dr. MORGAN, refusing to resign, was removed by Congress, and Dr. SHIPPEN was appointed in his place. We care not to rake up the ashes of discord, by an historical detail of the progress of the quarrel, which these early friends and coadjutors, in establishing our school, fought out in the public papers. We may, however, remark, that their several publications throw much light on the medical history of the American war. The Vindication is a pamphlet which he published soon after Dr. SHIPPEN's appointment.

"Out of respect to Congress," says he, "I have thus long deferred my application to the public. I can no longer consistently with my reputation defer it. *The wounds that are given by the envenomed tongue of calumny, are deeper and more fatal than the sword; they destroy what is dearer than life, reputation and peace of mind;* blemishes on a man's public character soon fester, and, if not speedily removed, will contaminate every thing about him, and infect the very air he breathes."

MORGAN had a soul of the most exquisite sensibility. The shock which he received by his dismission from the army, (most unjustly and cruelly,) carried its benumbing influence through the remainder of his life.

He gradually became poor, and withdrew from the public eye.

* He sent, on one occasion, a surgeon to Philadelphia, to get some instruments made, but there was only one cutler here; and his time was engaged by the Congress, so that MORGAN could get nothing done.

His residence was on the south side of Spruce-street, near the corner of Third, westward. Here he passed his time in study and writing. He died in the month of October, 1789, and was buried in St. Peter's ground, not far from the west door of the church, as I have been informed, but I can find no trace of his place of rest. He was a small, thin man, of very polished manners; he was a close student, and must have had a most familiar acquaintance with the Roman classics, which he quotes on all occasions with great propriety. He complains of the loss of his manuscripts, the labour of ten years, by the enemy at Bordentown. Dr. MORGAN married a sister of FRANCIS HOPKINSON, but died without issue.

We have brought to a close our meagre sketch of this distinguished Physician, with deep regrets for the scantiness of our materials; we shall look with interest for his Biography in the work lately announced by the venerable Dr. THATCHER, of Massachusetts.

BIOGRAPHICAL NOTICE.

ARTICLE XV.—*Biographical Notice of* Dr. JAMES HUNTER EWING, M. D. By D. THEODORE COXE, M. D.

THE insatiable archer has again invaded the ranks of the Medical profession, and torn from our embraces a valuable friend. The champions even of the human race, whose lives are devoted in combating the attacks of the last great enemy, and who sometimes seem to rob him of the victory, sooner or later are themselves found vulnerable, and bow to his superior might. Two of his latest victims in our immediate circle,* were taken from us full of years and fame, leaving an example to their juniors, worthy of imitation: this time, alas! he has levelled his unerring dart at one in the spring time of life; in the commencement of a career, which bid fair to be one of great usefulness and honour. When, and on whom the blow will next fall, is beyond the reach of mortal ken—may the victim be prepared!

Physicians being looked upon as public characters, it has been usual, and properly so, to preserve a brief record of their lives; and though, as in the present instance, the short period of their career should not have made it very eventful, it still becomes their surviving brethren to pay to their memory a tribute of affection and respect.

JAMES HUNTER EWING was born April 2, 1798, at Trenton, New Jersey. His early education was received at several places, one of which was the Grammar School of the University of Pennsylvania; and we find him in 1815 entering the Sophomore class of Nassau Hall, at Princeton, N. J. Here he remained three years, pursuing with ardour those studies which the college discipline required, and maintaining throughout, by his industry and perseverance, a high standing among his classmates. His correct

* Dr. Samuel Powel Griffitts, and Dr. John A. Monges.

deportment, urbane manners, and obliging disposition, rendered him a general favourite, not only with his fellow students, but also with the officers of college. This is rare praise, as we not unfrequently find, that in proportion as a young man rises in the estimation of his preceptors, in that proportion does he lose the cordial confidence of his immediate companions. He was firm and independent in thought, word and deed; but so open was his heart, so frank his disposition and manners, and so mild and even his temper, that though frequently a successful rival, awakening sentiments of emulation in the bosoms of his companions, he could never become the object of their envy or dislike. He finished his collegiate course in 1818, with an oration at the Commencement, upon the Fine Arts. We may here mention, that he early joined the Cliosophic Society of Nassau Hall, was a zealous and faithful member while in college, and continued, till the hour of his death, to retain for it a lively interest.

Ewing now entered immediately upon the study of the noble profession of Medicine, and still displayed that industry and ardour he had ever shown in the previous periods of his life. He regularly attended the lectures in the distinguished Medical School of this city—sought instruction from the clinical remarks of eminent physicians in our public Infirmaries—diligently perused the standard works of his profession, and joined private examining clubs among his fellow students. To render himself still further qualified for the practice of the honourable, but arduous and responsible profession he had chosen, he in 1820 entered the Alms House as House-student, and performed the duties of his station with exemplary fidelity. Even at this time, he displayed that discrimination and judgment which were afterwards his distinguishing characteristics.

It was during his residence in this institution, that he was called upon by the Professors of the Medical School to undergo an examination for his degree of Doctor of Medicine. He was at this time just convalescent from a very violent attack of fever of the typhoid character. In this interesting state of extreme prostration, his studies having been for some time abandoned, and his mind weakened by disease, he passed through an ordeal, at all times severe, with satisfaction to his professors; and shortly after received a recompense for all his sufferings in the honourable

title of M. D. His thesis was upon Amaurosis, and is a well written production.

Dr. Ewing commenced the practice of his profession among the Germans in Lehigh Co. Pa. where he remained until the fall of 1825, when he removed to Philadelphia, accompanied by the regrets and good wishes of his patients and friends, who testified the same in a letter given him at his departure.

Several circumstances contributing to his success in practice, his progress was rapid, beyond the usual advancement of professional characters, especially where much competition exists. In his manners he was kind and attentive to all, aware that an ungracious temper, a want of tenderness or courtesy may defeat the prospects of a physician otherwise fully instructed in what belongs to his profession.

Though devoting most of his time to the study of that profession, he did not think that every hour should, if it could, be wholly given up to it. The *time* employed in study is indeed far less important than the *attention* given to it, and "it is wise that the student, by an intermixture of literary studies with those of a more strictly professional character, and by a participation in the amusements of good society, should endeavour not merely to relieve and invigorate his mind, but to acquire that general information, and those manners, which will make him not only more welcome in the higher classes of society, but more useful in all."

In the month of June, 1826, while on a tour to the northward, he was arrested in his progress at Poughkeepsie, N. Y. by the rupture of a blood-vessel in his lungs. He recovered, however, from this attack, returned home, and subsequently enjoyed his usual health, until about three weeks before his death, when a sudden recurrence of hæmorrhage from the lungs again prostrated him upon a bed of sickness. During the period that elapsed between this and the hour of his death, he bore his sufferings with christian fortitude and resignation. Medical skill and learning were exerted in vain—the disease advanced with rapid strides —and on the 28th of March, 1827, he breathed his last. Owing to unfortunate, but natural prejudices, no autopsic examination was permitted to be made, and there was consequently no con-

firmation of the conjecture that the lungs were in an engorged and apoplectic condition.

His remains were followed to the grave by a large concourse of mourning relatives and friends; and an appropriate and affectionate discourse pronounced by the Rev. Dr. WILSON.

The character of Dr. EWING may have perhaps been sufficiently gathered from the brief outline we have thus given of his career, and we may therefore sum up our mournful task in the words of an obituary notice in a daily paper of this city.—U. S. Gaz. April 2, 1827.

"His talents as a physician were of the highest order. His disposition was soothing and gentle. In him the poor found a firm and generous friend; and all connected with him in business, testify to his honour and worth, and regret the loss of one so generally esteemed. As a son and a brother, he was dutiful, kind and affectionate—as a friend, sincere and generous—as a man, honourable and just—and those who esteemed him for his probity, loved him for his urbanity. Such was Dr. EWING: though bidding an everlasting farewell to affectionate relations, numerous friends, and all the benefits of fortune, yet he yielded up his life happy and contented, feeling a security in his dying moments of tasting those joys which fame and fortune cannot give."

BIBLIOGRAPHICAL NOTICES.

Article XVI.—*Annales de la Médecine Physiologique.* Par F. J. V. Broussais, Chevalier de la Legion d'Honneur, &c. &c. &c. Tome 9. A Paris, 1826.

We have sketched a running catalogue of a portion of the papers contained in the journal above cited during part of the last year, with the view of affording our readers the means of estimating its nature and character.

Every number is ushered in by a "clinique médico-chirurgicale;" which frequently begins with a few observations on the reigning diseases, or on the epidemical constitution of the atmosphere. After this, in the current volume, follows the case of the patriotic General Foy, one of the leading liberals of the French Chamber of Deputies. It was an indisposition of long standing. A hypertrophy or active aneurism of the heart existed; accompanied with inflammation and numerous ulcerations of the arch of the aorta, as well as a diseased condition of the liver and one kidney. These were thought by M. Broussais to have been produced by a chronic gastro-duodenitis, aggravated by the general's political labours and studies; and in the decline they produced a similar affection.

M. Clevers relates a case, in which a gastro-entero-cephalitic fever had been kept up for a length of time, and brought to great violence, by the injudicious administration of bark, emetics, cathartics, &c.; and had been deemed intermittent, while, in the narrator's judgment, the paroxysms or exacerbations were only produced by the stimulating substances given. Under a treatment of leeches to the head, and to a swelled and tender spot in the abdomen, of ice to the head, emollient fomentations to the abdomen, injections of flaxseed tea, pediluvia, and orange juice drink; the patient became a great deal better, and appeared getting well. A relapse was occasioned by the menstrual excitement and by imprudent excess in food; from which, however, she ultimately recovered.

M. Clevers thinks that frequently the impatience of the physician does not allow him to await the definitive cure of a phlegmasia which he has attacked by bleedings, that he deems himself necessitated to employ purgatives and tonics to promote the return of appetite; and that he thus reproduces the fever, calms it again by bleeding, general or local, and again reproduces it, finally adding the crown to the misfortunes of his patient by administering the bark.

M. Denis de Commercy describes a case of chronic inflammation of the *pancreas*. The patient had been subject to uterine hæmorrhagy. The symptoms were, pain in the epigastrium, a pulsating tumour situated between the umbilicus and the left false ribs, and vomitings; her sufferings being augmented during the hæmorrhagic effort. The pancreas was found enlarged, and compressing the duodenum to one-third of its diameter. The texture of the gland was not materially altered in appearance; but was almost as hard as cartilage. The canalis choledochus was contracted so as scarcely to admit a fine probe; and the pains in the epigastrium were referred to the gall-bladder, which was enlarged, and excessively distended with bile. No absolute suppression of this fluid had existed.

M. Broussais thinks that a gastro-enteritis was the original cause of the complaints; but that during all the middle of the case, the stomach was in an asthenic state.

In his clinique for the February number, M. Broussais states, that the mortality was great among the malignant fevers of drunkards, even in a very few days, with acute fever, delirium, trembling, red and pointed tongue, red eyes, &c. These cases he generally found affording numerous ulcerations towards the lower end of the jejunum, with an unusual paleness in the inner surface of the stomach; and often with softening. Were there no instances of the peculiar *delirium tremens* among these?

M. Chatelain, of Toulon, an apothecary, believes that *leeches* are best kept in earthen or stone jars, one-third filled with clay, extending to near the brim, the clay to be kept moist and changed twice a year. They deposit eggs, at Toulon, from the 15th of July to the end of August; and the young are easily raised in clay. Chlorine, ammonia, tobacco-smoke, and camphor kill them.

Dr. Angelot thinks that, though the antiphlogistic treatment of *marasmus* is the "only rational one," (p. 148,) yet that by tonics is more *successful* in cases of misery, want of food, cold, &c., from poverty. He has cured a case, in which the tumefied mesenteric ganglions were distinctly felt through the sides of the abdomen, by *syrup of iodine*, after arresting the diarrhœa by leeches.

At p. 176, is a discussion with "Sir Granville," (is this Dr. A. B. Granville?) of London, relative to a charge by Dr. Broussais, against the English physicians, of being empirics. The English antagonist replies, that he and his countrymen do pay great regard to precedent; and conceives that this has made them more successful than the French. This is received as an acknowledgment of the imputation.

M. Chardon, of Lyons, treats a case of ileus, in which an intussusception was thought to be proved, by leeches, warm baths, enemata, and oil of almonds; but the greatest effect by far, viz. an almost entire relief the same night, followed the use of prussic acid. From this an argument may be

drawn in favour of the supposition that the nervous system is more concerned in such cases than is sometimes supposed.

It appears from a table, in the March number, that in the French military hospital at Madrid, in the year 1825, there were 48 deaths among 1554, or about 3 per cent.; a very small mortality indeed. Among these there were only 4 per cent. of fevers. This success is ascribed to the Broussaian treatment adopted there.

A case of *chronic pleurisy* had been mistaken by several physicians for a pulmonary consumption; and was cured by Dr. Tetu, by means of a milk diet, and the use of setons on the thorax. It affords a fine triumph of the judicious use of revulsives; and may serve to indicate the usefulness of that close diagnosis for which the French are so remarkable. We well remember a case treated, to the patient's dying hour, as phthisis pulmonalis, which, on examination, manifested one side of the thorax completely distended with serum and lymph, while the lung was compressed to the thickness of a finger.

M. Fabre furnishes a case in which a man affected with fever (characterized by chills, lassitude, head-ach, pain at the epigastrium, nausea, and intense thirst) had *thirty* grains of tartar emetic administered to him, and twelve more prescribed but not taken, all in three days, as an application of the Italian doctrine of contra-stimulism. The most violent symptoms were produced; and the patient appeared in imminent risk of his life; when M. Fabre recovered him by the use of diluents, and leeches to the stomach.

M. Dommangel, attached to the French army in Spain, has met with such unexampled improvement in the success of his practice, from the greater use of *leeches*, that he has written a memoir on the management of these animals, detailing a number of his experiments. He finds that leeches may be very well freed from the blood which they have swallowed, either by salt applied to their mouths, or by punctures near the tail, from which the blood is to be pressed with the fingers; but that these modes are too troublesome to be adopted where any considerable number of these animals are employed; and that it succeeds much better simply to leave them to themselves, in reservoirs half filled with clay or "terre glaise," with tufts of flag and gladiolus growing in them. By this method, full grown leeches soon become able to bite a second time; and the process is much more favourable to their health.

He employed hogsheads, but recommends a large oblong wooden box, divided into compartments, and furnished at one end with a hogshead of water, and stop cocks to keep up a dribbling stream through this "artificial marsh."

In ten and a half months he used 30,250 leeches in his hospital. He computes that a "marsh" of twenty-four feet by three feet wide and deep, is sufficient for a hospital. If we understand him correctly, he expects

them to bite a second, and third time, or oftener, at intervals of only two weeks.

At p. 526, the same physician reports his success for the year 1825; having lost, if we understand the table, only three patients, in 1118, or little more than *one-fourth of one per cent.* M. Renaty, of Rennes, under less favourable circumstances, reports, in three months, 584 cases, among which he lost fourteen, or *two and a half per cent.*

M. Richond gives six cases of *gonorrhœa*, cured by iodine and leeches, averaging seventeen days in the treatment.

The above glance may serve to show of what materials the *Annales* are composed. Of their influence, aided as they are by the constant running comments of the celebrated genius who edits them, we may easily judge. We must add, however, that our selections have been made at random; and of course, a large amount of equally interesting matter has been left behind. C.

Article XVII.—*The Anatomy of the Brain, with a general view of the Nervous System.* By G. Spurzheim, M. D. of the Universities of Vienna and Paris, licentiate of the Royal College, London. Translated from the unpublished French MS. by R. Willis. With eleven plates. London, 1826.

We are highly gratified to see an account of Dr. Spurzheim's discoveries and views in the anatomy of the brain, in an English dress, and in a cheaper and more accessible form than in his large work. It is a pledge that the errors and misrepresentations, on this point, of an early Edinburgh Review, are about to lose their last hold on the public mind, and the labours of this distinguished votary of science to receive an approximation to their just degree of credit; and it is all the more welcome that it comes from his own hand. Although, to many, leisure, opportunity, or industry will still be wanting for the investigation of the charge of plagiarism from Reil and others, yet with regard to the correctness of his own descriptions, any one will now be a sufficient judge who can obtain a brain to dissect, and will use the requisite care. The advantages which the volume before us confers for studying the anatomy of the brain, are of too obvious a nature to require a description.

We notice, in the present edition, an error of the press, or rather of the graver, which, though it seems of slight consequence, must present real embarrassment to the student. In several of the figures copied from Serres, the lobes of the brain are marked with the numbers by which the latter writer refers to his own plates; these not having been altered so as to accommodate them to Dr. Spurzheim's references. As these occur

among the brains of fishes, the error is of a less radical importance, though it is a pity to confuse the conceptions of the reader on this minor, but still interesting subject.

Dr. S. complains of unjust treatment from some of the learned--

"The influence our labours have had on the study of the nervous system is incontestible. To be convinced of this, it is enough to examine the state of knowledge in regard to the anatomy, physiology, and pathology of the brain and spinal marrow, when Dr. GALL and I developed our ideas on these matters, whether it was by teaching orally, by dissecting publicly, or by means of our writings. I confess there is great satisfaction in the consciousness of having contributed to the important reform that has been effected in regard to the nervous system. I am only sorry to observe, that many of our ideas are appropriated by the authors of recent publications, without any mention of the source whence they were derived, or of the individuals who first struck them out, or reduced them to certainty by direct proofs. We are commonly enough mentioned, it is true, when such of our assertions as appear weak are the subjects of criticism, but our names are kept in the back ground when points of importance become the matter of discussion." "Further, the mass of facts cited, the number of dissections made, ought never to impose on us, nor be made a means of concealing the truth." "Anatomists and physiologists had certainly looked upon heads without number; but, before Dr. GALL'S appearance, had failed to discover the seat of a single cerebral organ. A solitary individual, a beggar, enabled him to detect the organ of self-esteem, precisely as the fall of a single apple revealed the law of gravitation to NEWTON. Anatomists had seen many human brains without remarking any differences among them; these, however, are, to say the least, as constant as similarities. The point that essentially interests science, is *the discovery of the truth;* and this is then *confirmed* and established by all ulterior observations."

Whatever justice there may be in the application of these remarks which Dr. SPURZHEIM makes to some distinguished living names, his lasting fame will certainly be sufficient to admit of such deductions. The historian of science will always be forced to admit that our author, and his equally celebrated preceptor and coadjutor, have given the primary and effective impulse to the investigations which are now so ardently and usefully proceeding, for the elucidation of the structure and functions of the brain; and that such names as REIL, TIEDEMANN, SERRES, JULIUS CLOQUET, &c. &c. are actively engaged in repeating, verifying, and occasionally extending opinions, which, when first advanced by the physicians from Vienna, were denounced, at least in England, as bold impostures. C.

QUARTERLY SUMMARY

OF MEDICAL AND SURGICAL INTELLIGENCE.

I. ANATOMY.

1. *Structure of the Skin.*—M. Andral, Jun., has demonstrated on a limb affected with elephantiasis, three sub-epidermic layers, admitted by Gaultier and Dutrochet, but which had never been before demonstrated except in negroes and animals. The dermis was considerably thickened; above it, the papillary body very distinct, and much developed in several places, was separated from the epidermis by three very distinct layers. One of these the innermost was thin, having the appearance of a white line, and received no vessel; (*couche albide profonde* of M. Gaultier, and *couche épidermique* of M. Dutrochet,) the second exterior to this, was composed of blackish filaments, analogous to the coloured layer of negroes, but without *gemmules;* and finally, the third, which was thicker, and scaly, was immediately subjacent to the epidermis; it is the *couche albide superficielle* of Gaultier, or the *couche cornée* of M. Dutrochet.—*Bibliotheque Med. Avril.*

2. *Appearances of Healthy Mucous Membranes.*—M. Billard obtained the prize of the Parisian Athenæum of Medicine for a treatise on the appearances presented by the healthy and diseased mucous membranes. His observations have been made in a course of many years in a large hospital at Angers, and his opinions of course have a claim to that respect which long experience and ample opportunities for observation might bestow. We take the following account of his observations from the July number of the Edinburgh Medical and Surgical Journal. Some of these observations have been already cited in vol. I, p. 441 of this Journal, but we will not separate them in this place on that account.

The *colour* of the mucous membrane in the adult state, when not injected either by disease or by pseudo morbid infiltration, is in the stomach dull-white; in the duodenum and jejunum pale ash-gray; in the ileum grayish-white, and in the great intestines white. In the fœtus, however, the whole alimentary canal has a pale rose-red tint, which disappears very soon after birth. During digestion, too, it assumes in all periods of life a more or less vivid red blush at the points where the alimentary matter is undergoing the process of chylification.

The *rugæ* differ very materially in distinctness, even in circumstances apparently the same. Stomachs, for example, are occasionally found, in which, although they have not been distended, scarcely any rugæ are visible. The first inch, or inch and a half, of the duodenum is free from rugæ or valves; the rest of the duodenum is crowded with imbricated plates, which become fewer and less prominent as we proceed downwards, till at length, at the termination of the ileum, they are merely linear. The valvulæ of the intestines do not begin to be formed till the seventh month after impregnation, the rugæ of the stomach not till birth.

The *villi* of the stomach and intestines are sometimes hardly perceptible, occasionally very distinct, even without the aid of a microscope. They

are best seen by floating the membrane under water, and then passing the finger gently backwards and forwards over its surface. They are most abundant in the stomach and duodenum, diminish in number and distinctness in the rest of the small intestines, and in the great intestines are hardly visible.

The *muciparous glands*, about which anatomists are not yet very generally agreed, have been studied very carefully by M. Billard; and the following is the result of his inquiries. In some bodies they cannot be discovered but with great difficulty; in others, although the membrane is quite healthy, they are so distinct that even their orifices are visible to the naked eye. They are most obvious in the duodenum, at the termination of the ileum, and in the great intestines. In their most indistinct form they are seen arranged in oblong laminæ, with a barely perceptible line bounding them, and causing an increased opacity of the mucous coat when it is held between the eye and the light. In other places they are rendered more distinct by constituting little white granulations as big as a millet seed, and communicating together by a fold of the membrane. In their most distinct form the surface is studded with such granulations, the summit of each of which has a little gray point. In this form they are seen in the lower part of the ileum.

It is impossible to give an accurate account of the *thickness* of the mucous membrane of the intestinal canal in a state of health. It is thickest in the duodenum, then in the stomach, next in the rectum, jejunum, and ileum, and thinnest in the colon. When a fragment torn from the subjacent coat is stretched over the finger, the finger is seen through it, as through white crape.

The *mucus* secreted on the surface of the membrane, is abundant in the fœtus, and very firm about the time of birth. It is not easy to lay down its healthy characters in adult age; but it is never red, as some suppose, unless where the membrane underneath is infiltered with blood. It becomes less abundant in old age, particularly in the great intestines.—*Edin. Med. and Surg. Journal, July.*

3. *Nerves of Sense and Nerves of Motion.*—Mr. Broughton, surgeon of 2nd Regt. of Life Guards, has published some cases exemplifying the difference in the functions of these nerves. 1. A young farrier had pain in the head and limbs, with some fever, for which he was purged. Two days after this his speech was indistinct, and he had some difficulty in adjusting the muscles of his face and mouth. The voluntary muscles of the limbs natural; but, the whole skin from head to foot of the left side, was so insensible, that a pin thrust into it would produce no sensation. Leeches and blisters on the head, and purgatives, removed the head-ach, but the sensibility did not return for some weeeks. 2. The second patient was addicted to inebriety; he had pain of the head and loss of power in both extremities of the left side, while the sensibility was perfect. The head-ach was removed by purgatives, but the loss of power continued, and he was sent to Chelsea. 3. A trooper had giddiness and head-ach, a furred tongue and costiveness: muscular power not affected, but the skin of the left side was insensible: he was cured by antiphlogistics and mercurial alteratives. 4. This patient had loss of motion of the right side of the body, slight numbness of the face, and difficulty in adjusting the facial muscles: sensibility not impaired: he recovered after a good while.—*Johnson's Journal, July.*

4. *A Mummy.*—M. Passalacqua announced to the Royal Institute of France, at the sitting of March 19, that he had opened a Mummy in his Gallery, and found it in an extraordinary state of preservation. M. Geoffroy St. Hilaire also declared that several of the organs of this mummy, and

particularly the diaphragm, still preserved their suppleness. M. CHAMPOLLION has decyphered part of the manuscript papyri which were found with this mummy, and learns that the deceased was the daughter of the warder of the temple of Isis at Thebes, and her age about 19 years.

5. *M. Mayer of Bonn, on extirpation of the Kidneys.*—This gentleman has lately made many experiments on rabbits and Guinea-pigs; from which he deduces, that the extirpation of both the kidneys must always be followed by the death of the animal; and this event takes place most commonly within the space of from ten to thirty hours. He thinks that the inflammatory diseases which follow the loss of the kidneys, are to be attributed to the *metastatic secretion* of urine on the parts which become inflamed, as the cavities of the cranium, thorax and abdomen; and especially the ventricles of the brain, the pericardium, and the stomach and intestinal canal: the nervous affections derived from these operations are also to be explained in the same manner, to wit, the metastasis of urinary secretion to the nervous system.—*Bibliotheque Med. Avril*, 1827.

6. *Dr. Eichhorn on Cutaneous diseases.*—This gentleman has been several years employed in investigations concerning the structure and function of the organs of the cutaneous excretions. He intends to publish a work on the subject, and has permitted a translation of the second chapter to appear in the Journal des Progrès des Sciences Medicales. It has long been admitted, says he, that there exist in the skin, some small real glands, different from the *cryptæ* which enclose the roots of the hairs. These glands are supposed to furnish the sebaceous secretions of the skin, but yet no anatomical demonstration of them has ever been made.

After a minute and careful examination of the structure of the cryptæ which contain the hairs, and the pretended orifices of the sebaceous glands, Dr. EICHHORN comes to the conclusion, "that there do not exist any sebaceous glands, as distinct organs, and that the sebaceous matter is secreted in the cryptæ of the hairs (*cystes des poils*").

Dr. E. denies the assertion which has been made, that the sebaceous matter is secreted for the purpose of lubricating the skin, and thus preserving its pliability and softness; an idea which he regards as unphilosophical, since its pliability depends not on being greased externally, like a pair of boots, but on the fluids which vitally circulate in it. He considers the sebaceous matter as intended to preserve the elasticity and disengagedness of the hairs, which would certainly become felted together on the head and other parts without some provision of this nature, since it is manifest that mere pressure and the action of water are capable of producing that result called felting. These conclusions are strengthened by the fact that the sebaceous matter is most abundant where the hairs are most numerous and most exposed to interlacement, as in the head, &c. in man; and in the sheep and other animals which have curled hair. He doubts the existence of sebaceous glands, even round the corona glandis penis, but does not speak with any certainty on this point; though he says the concretions which are occasionally found behind the corona, in persons who pay no regard to cleanliness, is not sebaceous matter. He proposes that the greasy matter should hereafter take its true name, *sebum pilorum*. There are several sections of the same chapter which treat of the pores of the skin, and the method of demonstrating them both on the living and dead tissue.—*Journal des Progrès.*

II. PHYSIOLOGY.

7. *Nævus Maternus.*—The following extraordinary case is related by G. Bennet, Esq. in the Lond. Med. and Phys. Journal for July.

"On the morning of the 19th of March last, Mr. Baldy's attendance was requested on a poor woman named Hooper, (residing in Lower-street, Plymouth,) then in the pains of labour, and who, shortly after his arrival, was safely delivered of a male child, presenting the following remarkable appearance. The mouth was extended to its utmost limits, and rendered incapable of being closed by the existence of a cluster of tumours, of various sizes, which occupied and projected from the upper and middle part of the tongue, and adhered to the greater portion of the superior portion of that organ. The tumours bore, in appearance, an astonishing resemblance to a bunch of grapes, not in form alone, but also in colour, being of a yellowish green hue, and covered with a very delicate pellicle or epidermis; whilst the similitude was rendered still greater by the globular tumours decreasing in size, in the manner so peculiar to a bunch of grapes. Besides this peculiar excrescence, there was yet another upon the same child, and attached to the upper part of the thorax: it consisted of a long portion of integuments, similar, both in size and colour, to the wattle of a turkey cock."

"Six hours after birth, both nævi were removed by Mr. Baldy, at which operation I assisted. Their removal was attended with but little hæmorrhage, and no vessels were required to be secured. In the course of a few days after the operation, the little sufferer was able to take the breast, and is now perfectly recovered."

There is a plate accompanying Mr. Bennet's paper, in which these nævi so exactly resemble some of the hydatids we have seen, as to raise in our mind a regret that they were not more fully described. If they prove to be nævi, then it will be admitted that the following additional remarks are possessed of the highest interest.

"It next became a question of interest what could have given rise to these peculiar excrescences. Upon my questioning the woman whether she recollected having felt a wish or longing for any particular object during the pregnancy, she immediately recalled to mind, that she had 'wished' or 'longed' for grapes; but more particularly on one occasion, when she saw a boy eating some; and still thinking on them when passing the streets, she was continually looking in the fruiterers' shops. The only circumstance that can account for the piece of integument resembling the wattle of a turkey-cock is, that when about four months advanced in pregnancy, going into a neighbour's *courtilage*, she was frightened by a turkey-cock running after her, as if for the purpose of attack; and, to use her own expression, 'turned her blood.' I consider it requisite to mention, that the woman, *at the time the questions were asked, was not aware that* any *deformity whatsoever existed*, with respect to the infant; although afterwards, her suspicions being excited, she inquired 'whether there were any marks about the child.'"

How many of what are supposed to be vulgar errors, may hereafter turn out to be no errors at all?—*Lond. Med. and Phys. Journ. July.*

8. *Causes of death after the ligature or division of the eighth pair of nerves.*—Professor Mayer, of Bonn, has lately performed several experiments on these organs, and informs us, that, if an animal dies *speedily* after the operation, coagula are found in the heart and pulmonary vessels, they are soft, and consist of a black clot; but if the animal survives longer, say forty-eight hours, they are white, and very dense. The regular healthy influence of the nerves being abolished, the blood ceases to be liquid, and

begins to decompose as if out of the body. Hence we may conclude that the fluidity of the blood is a product of nervous action, though this conclusion requires farther experiments, to become fully and undeniably established. This may serve, as Professor MAYER remarks, to throw some light on the pathology of asthma, a disease in which an affection of the nervus vagus occasions the formation of analogous coagulations.

Another circumstance mentioned by M. MAYER is this, viz. the pulsations of the heart became much more frequent while the respiratory motions became much slower, so that there appears in this case to be what he calls an antagonism in the two functions. We may remark that this antagonism is quite contrary to nature, for we find that the pulsations of the heart in exercise, in fever, &c. &c. increase in proportion to the number of respirations. The following table shows how the animals were effected:

Expt. 1.	respiration	fell	from	17	to	8	Pulsation rose from	34 to 120
2.	"	"		48	to	8	" "	120 to 280
3.	"	"		80	to	40	" not affected	
4.	"	"		100	to	48	" "	
5.	"	"		80	to	28	" "	

The temperature of the animals in which the respiration was so much affected, either did not diminish at all, or at least not in any proportion to the breathing.

Digestion, as far as the stomach is concerned, was not found to be diminished, although there was an anti-peristaltic motion. The chemical act of digestion was not affected. For in rabbits the chyme was acid, and in carnivorous animals it was neutral, as in ordinary circumstances. The assertions of WILSON PHILIP are consequently refuted by this experiment.—*Journal de Progrès, &c.*

9. *Anomalous Language.*—M. MARTINET, of the Hotel Dieu, describes the case of a man called Lefevre, æt. 54 years, who, after some crosses, found himself embarrassed in attempting to read, write, or find words to express his ideas. His general health and the organs of speech were nevertheless apparently perfect. In attempting to reply to any question he made use of words either wholly unintelligible, or having a meaning entirely different from that he wished to communicate. For example, being asked if he had any pain in his head, he answered, *les douleurs ordonnent un avantage*, but if he wrote the answer, it was, *je ne souffre pas de la tete.* If you said *tambour* (drum) and asked him to repeat it, he said *fromage* (cheese), but wrote it very well when asked to do so. He could copy very exactly *feuille medicale*, but could not read it after he had copied it: he would say *féquicale, fénicale, fécocale*, and when *féquicale* was written for him he called it *jardait.* Various objects being presented to him, he designated them in general with correctness, but if he happened to make one mistake, he would go on and call a pen a cloth, a spitting-box a pen, a hand a cup, a string a hand, a ring a spitting-box; therefore, he could pronounce the words pen, hand, spitting-box, &c.

This is an interesting observation, as evincing the disjointed state of the mind, consequent to moral or physical causes. We have seen a case in which a young man being thrown out of a gig on his head, was at first stunned, then affected with the most persevering loquacity for some hours, which was followed by complete dumbness for several days; as the dumbness diminished, he began to give the wrong names to things, evidently understanding the differences between objects, but having totally forgotten the words which stood for them; in proportion as he recovered, he came nearer and nearer to correctness: for example, he was a whole day learning to say apple, which he persisted in calling A-ple.

10. *Dr. Ant. Verniere on the sense of Taste.*—The best physiologists have

admitted that gustation is common to the tongue, the palate, the gums, and the mucous lining of the lips and cheeks; but Dr. VERNIERE has discovered that this opinion is not correct. Dr. V. has experimented lately on this subject, and declares in his new topography of taste, that there is in reality nothing of that sense along the middle of the tongue, while it appreciates the slightest savours along its edges, at the tip, on the under surface, and over a large portion of its base. The mucous covering of the jaws, the gums, the cheeks, and the lips is completely deprived of this sense. Where the membrane covers the bony vault of the palate, there is no taste, but it appears in the soft palate to be very acute, as well as on the arches and on the amygdalæ. The upper surface of the soft palate is possessed of taste, as he proved by letting sugared water run back on the floor of the nares; he even says that in this way he obtained the liveliest impression of the taste of sugar he ever experienced. The pharynx is also endowed with this sense as far down as he was able to explore it. These observations go to show that the papillæ of the tongue are really not the organs of taste, as they have been supposed to be, inasmuch as they are least abundant in places where the sense is most intense.—*Journal Des Progres.*

11. *Muscular Action.*—"ROBERT SKEPPER, the pedestrian, has finished his arduous task of walking from Winchester to Farnham, and back, fifty-six miles, for twenty successive days. This feat is, we believe, the greatest of its kind ever performed in this or in any other country."—*Edinb. New Philos. Journal.*

12. *Polarity.*—In a former number of this journal we gave some account of the discussions concerning animal magnetism, held in the Academy at Paris; and in a different number, an account of the views entertained by GLISSON and his predecessors, on the nature of life. Such of our readers as remember those articles will not be surprised to see in this place an account of what is called *Polarity*. We gather it out of the third No. of the Journal des Progrès, for which it was written by M. MARTINET. We learn in that place, that a doctrine termed polarity has prevailed for several years in Germany and Italy, particularly in the schools of Vienna and Pavia. It has been developed in several works, said to be very ably written. These are the productions of LENHOSSEK, HILDENBRAND, and others. A very wide spread influence in Italy is boldly claimed for it, where it is said to outstrip even the contra-stimulism itself. We are sorry if this is true, as its inevitable tendency is towards complete atheism, as, for example, in the following passage. "The *first* cause of *universal nature*, unknown but by its effects, is called *Force* of *Nature*. Every thing that exists, or strikes our senses, is established and maintained in virtue of primitive forces, so that these ultimate powers are to be regarded as real *nouménes*."

All the phenomena of nature evince a double effect, attraction and repulsion, which are opposed to each other. The primitive force of nature, therefore, is distinguished into two forces, which are called *polar;* one attractive, the other repulsive, by virtue of which all the visible or otherwise cognizable phenomena of the universe are produced. Attraction limits repulsion, contraction limits expansion, and vice versa: When the forces are equal, a state ensues which is denominated the sate of *indifference;* but as the constant interference of phenomena prevents the continuance of this state of *indifference*, the struggle for it, or the tendency to it, is a perpetual combat, which is nothing more nor less than *life*. Various proportions of polar forces in this vast frame of things, must produce a great variety of forms, or causes and effects; and all the phenomena that result may be arranged under the heads of *Mechanical*, *Chemical*, and *Dynamic*.

No phenomenon can exist, or be conceived of as independent of motion;

the causes of motion are either mechanical, chemical, or dynamic. The mechanical causes of motion depend on the gravity and impenetrability of matter; the chemical causes depend on molecular changes of the elements of bodies; the dynamic causes of motion, on the contrary, do not depend necessarily, either on changes of form or space, or molecular combinations. The dynamic causes constitute the *proximate* cause of *motion;* motion is always dynamic, a conflict of polar forces then taking place, *so that it is impossible to conceive of a body in motion as entirely passive.*

Our readers now perceive that in the formation of all bodies, there must have been a conflict of these polarities, and that each body retains a part of the forces, by the conflict of which it has been constituted a body. It has appropriated, out of the great reservoir, enough of these forces to constitute it an individual, and to maintain itself as such in spite of all opposing weaker forces. Such a body therefore is not *inert;* it constitutes an active integer of universal nature; it lives, and there *exists* nothing, from a particle of dust up to a man, that is really *dead.*

Universal life is that total of forces by which all nature exists—individual life is that by which each body exists. There are no well determined limits between what we call, in common language, living and dead matter; the difference between them is only apparent: some possess the self-maintaining power in so low a degree, that it is not cognizable by the senses, it is true, so that there are infinite gradations from the minimum up to the maximum state of life. Bodies may be divided therefore in *cryptobiotic,* and *phœnerobiotic,* or those in which life is obscure, and those in which it is manifest. We have no space sufficient to trace out here after M. Martinet, the shades of difference between these two states of life, which he has done at much length. We must content us with citing as much as is necessary of this metaphysical physiology, and shall be glad to have done with it forever when we have expressed our opinion concerning its tendency.

Since *universal nature* is strongly bound up in a system of mutual relations, it follows that no one body can exist without being more or less under the influence of other bodies; for the intrinsic vitality which a body acquires by the act of becoming individual, implies only the possibility, and not the fact of living. No life can be manifested in it unless a suitable influence is exerted to that end by other bodies extrinsic to it. Excitants, therefore, are admitted in this polar doctrine; no function can be exercised without an impulse from without, an excitement, a stimulation. These excitants, or external agents, trouble the equilibrium of the *primitive forces* of a body; motions result from this loss of balance, and these motions are the phenomena of life: hunger, thirst, digestion, the secretions, nutrition, muscular contraction and irritability, even sensibility, and the act of conception, are produced by the polar forces, which in a high organism have resulted in a principle called vital-imponderable, or bio-dynamic, of which the *motors* are nerves, just as Dr. Hare's zinc and copper rolls are the calori-motors of his powerful apparatus. This *principe imponderable biotique* is the vital principle, "and is only developed by vital action." How incomprehensible that the vital principle should be produced by vital action; the cause is the cause of itself, or the effect is the effect of itself.

Such, in a few words, is the theory of polarity, which would render all nature a huge biomotor; which, referring all the multiplied and manifest proofs of order, wisdom, benevolence, and power that we see in creation and providence, to the action of two opposing principles, repulsion and attraction, or as it might be denominated, north-ism and south-ism, quietly takes away the very foundation of religion, virtue, hope, and therein

happiness, from the groping bio-motived philosopher who may be so simple as to adopt it. The imponderable *bio-dynamique* is exalted into the throne of the great God who ruleth in the heavens; the highest and holiest example of virtue is but a beautiful specimen of attraction and repulsion; Socrates and Washington are no more to be praised for their goodness, than Domitian and Marat are to be blamed and execrated for their atrocious violation of all human and divine laws; and the whole goodly frame of nature, ordained with so much wonderful wisdom, and upheld with so much perfect goodness, may, or may not, just as it happens, rush into wild and primæval chaos, now, to-morrow, or never. There is no eternal and imprescriptible rule of right: the murderer and his innocent victim are alike innocent and unfortunate! Alas, for the philosophy which would conduct mankind to such a light as this! Anacharsis Clootz and his prostitute conducted in triumph among the ghastly trophies of the guillotine, could teach nothing of worse tendency than this polar philosophy. We reject it for our countrymen, and scorn it, and pity it, as unworthy a school of philosophers, and more unworthy a school of physicians.

We know not how widely such extravagances may reign in Europe, but we cannot but express our unfeigned astonishment, that such doctrines can be quietly listened to in countries which boast their advances in knowledge, and treat with contempt the little progress made by the human mind on this side of the Atlantic. Let us rejoice in our humbleness; we would even rather go back and burn witches at Salem, or hang quakers at Plymouth, in the fear of God; we would rather turn the wheel with a Schaman, or look through the fire with a Guebre, up to a Great and Provident Deity, than run so reckless a career of philosophy as this revived epicurianism, which, in the 19th century, would set up *nouménes* not so discreet as Jupiter Olympius, and no more to be depended on than a thieving Mercury. There is great reason to complain of the tendency of much of the professional philosophy of our European brethren; some of the articles in the Dict. des Sciences Medicales are, for example, more impure than the wit of Charles II.'s courtiers, they are immodest and demoralizing. We would soberly ask these physicians, what advantages they expect to mankind from such things as this polarity? Are the legitimate objects of pursuit to be found in the subversion of those principles, which, strong as they are, cannot even now keep the jails empty, and the gallows free from its frightful burthen? Are these objects other than that profitable knowledge which enables us to administer most efficiently the divine charities of our art? Let not this noble science, when, as often, it cannot arrest the messenger of death, be employed to sharpen and poison his sting, or augment the terrors of his victory.

III. PATHOLOGY.

13. *Our remarks on Dr. Broussais.*—In the March number of the *Annales* edited by the celebrated French reformer, exceptions are taken against a note in one of our former articles, where we disclaim any membership of his sect or school, and notice some of the recent discussions. It is there said that we "endeavour to cast a sort of ridicule over him and his opinions." We have been misunderstood. We never praised the "Lettres à un Médecin de Province;" and the sole object at which we gave way to a smile was the claim there alleged to have been made to a freedom from the ordinary imperfections of human science, and, their necessary consequence, a liability to future reform. We were, perhaps, wrong; and the

part of HERACLITUS would have become us better. A tear is indeed due to those fond anticipations of future permanence which constitute the legitimate aliment of genius; but which are so uniformly destined to be more or less extensively disappointed.

We wish the reviewer could be made aware how frequently we are considered as the defenders and disseminators of his leading doctrines; or, again, that many of those principles which he inculcates have been long and earnestly inculcated by our venerated RUSH. There is certainly less ground for his reform in this country than there seems to have existed in France; as the majority of us have long discarded the practice of prescribing for isolated definitions of disease, and assumed the uniform habit of analyzing "the state of the system" according to the best lights we possessed, as the grounds of our judgment in the application of remedies.

It would be easy for us to add to the length of this article; but we do not wish to occupy the time of our readers with our personal feelings. It is with unfeigned respect that we speak of the labours and merits of Dr. BROUSSAIS; but the reviewer should recollect that we are at the distance of 3000 miles from him, and cannot feel quite so lively an interest in the disputes of Paris as he does. We are men originally of different habits and ideas; and to receive new doctrines with caution is what we have always apprehended to be true philosophy. We are told that we have not an adequate acquaintance with the new doctrines. This is, no doubt, correct, as we have had no one to teach us, and that knowledge which is borrowed from the hasty perusal of books, coming amid a crowd of diversified publications, must certainly be less perfect than his own.

14. *East India cholera* analyzed according to the principles of the physiological school. M. GRAVIER, physician in chief to the health service of Pondicherry, is a pupil of the physiological school, and has favoured us with his observations on the subject of the disease called, in the East Indies, by the names of epidemic cholera and *mort de chien*. He has enjoyed the most ample opportunity for becoming acquainted with this truly destructive plague; having resided for eight years upon the theatre of its ravages.

An account of his opinions and experience will possess a double interest; both from the application of these celebrated doctrines to a terrific malady frequently invading, in a sporadic manner, the United States, and from its affording the means of a comparison of the views of a French physician with those of the English army and navy practitioners whose reports have reached us, either entire or in analyses. M. GRAVIER goes all lengths; and states his success to have been such as to justify his treatment to the fullest extent.

A species of distress incapable of being well expressed, or a kind of stupidity, was, in many cases, among the first symptoms. This was frequently assigned by the sufferers as a reason why they had not sooner applied for medical assistance. In others, and these were the greater number, the attack was sudden, and almost always took place during the night.

The most remarkable symptoms were, in the order enumerated, as follow: vomitings of a limpid fluid, mixed with a whitish mucus, and frequently containing worms; stools of the same appearance, *without worms*; pulse remarkably small; acute pains in the stomach; decomposition of the features;* eyes haggard, sunken, dull; movements irregular; tongue red (bright red?) over its whole surface; ardent thirst. After some moments, an exasperation of these symptoms; extremities cold, inability to lie on

* Deep alteration of the features, by the contraction of the muscles of the face. *Dict.*

either side; violent pains in the stomach and lower belly; picking at the bed clothes; cold sweats; suppression of urine; pulse almost insensible; tongue dry, pointed, red; eyes fixed; spasms; oppression at the præcordia.

Emissions of blood, according to M. GRAVIER, were always followed by relief to a greater or less extent; and he inserts this fact among the symptoms. A smart appetite was frequently the product of his leechings; to indulge which, however, during the first intervals, was fatal. The disease, when left to itself, lasted from one, two, or three hours, to twenty-four hours, and never longer. *All that were not attended to, died.* (p. 271.) Nearly half of the population of Pondicherry were affected within the single year.

Dr. BROUSSAIS's reviewer comments, we think with good grounds, upon the incomplete character of the anatomical investigations which had been made for the purpose of elucidating the disease. The practitioners "had not known how to see the cause of the evil; and had devoted their ingenuity to hypotheses on its nature, and to disputes which can have interest for those alone who wish one day to amuse themselves by passing in review the follies of physicians."

Numerous dissections have shown him the internal membrane of the œsophagus inflamed, the cardiac orifice of a violet red, the internal membrane of the stomach, throughout the whole extent of that viscus, thickened, and of that brown, colour which has frequently been considered gangrenous, and, in one instance, ulcerated, and easily separating from the muscular coat. He saw the latter perforated in an old woman, who had vomited a number of worms. (M. BREMSER would not have thought the worms could produce the perforations; vide Vol. 2, of this Journal.) The duodenum always presented the same appearances as the stomach; but the [other] small intestines did not exhibit traces of an equally violent inflammation. The intestinal canal was empty. The bladder was inflamed, and resembled parchment rumpled; the liver and spleen were natural; the gall-bladder was full of yellow bile; the encephalon and the thoracic viscera were sound. In general the marks of inflammation were less severe in those persons who had died after a very short illness, than in those who survived longer. Several English physicians found intus-susceptions; but M. GRAVIER did not.

M. G. deserves the more praise for his exertions in obtaining these anatomical facts; as in that hot and rapidly decomposing climate, his health was entirely shattered by the exposures he underwent in making the dissections.

The cholera, at Pondicherry, is peculiar to the north-east monsoon, in which the wind is sometimes wet and sometimes dry, but always cold; thus presenting a baneful alternation with the heat of the noon-day sun. (At Madras, in its vicinity, the thermometer usually rises to 88°—vide JOHNSON on tropical climates.) The natives suffered most from the action of these causes, being directly exposed, in open buildings, to the night air, with insufficient clothing. The wretched class of Pariahs, or outcasts, in particular, suffered most dreadfully. Europeans, who lived better, escaped, while those who lived in the Indian manner were exposed to the disease. In what this better regime consisted we are not told, excepting the greater protection afforded by their houses against cold and moisture. The natives were supported by rice and millet, mixed with preserves, curdled milk, legumes, and tender vegetable leaves. Their drink is described as warm water. We are to recollect, or at least presume, that the Europeans here alluded to are French, and not English; and we may infer that a smaller portion of spirituous liquors entered into their bill of fare.

It is highly interesting to see how far at least the external causes of

cholera correspond with what we observe in the United States. The attack was almost always in a cool night, succeeding to a warm day. M. GRAVIER is convinced from extensive observation, that the East India cholera is never *contagious*, excepting where a focus of infection is generated among a large assemblage of men, and liable to be thus transported from one place to another. Of this he cites several instances.

From what we have passed in review, M. GRAVIER considers the cholera as inflammatory; and calls it "the epidemic gastro-enteritis of India." In another place it is said to be the same with yellow fever—rather sweeping, we should think, but there is a strong analogy between these diseases.

M. G. thinks that the present is a suitable subject for the treatment by leeches to the stomach, and demulcent drinks. Experience is the only guide; and if we can judge from his reports, is very strongly in his favour. He is astonished to find with what ease the most frightful maladies are cured, or with what facility they are rendered permanent (eternisé.) He gives in a table of seven years' practice of the native Sinnapa Ambou, in a batallion of sepoys. The cases amount to 205, of which only 20 died.

It has been an occasional occurrence to hear American physicians express astonishment at the fondness manifested by the French for remedies apparently so inert as demulcent drinks, and an impression that it amounted to a mania, or at least to an extremely strong prejudice. It may not be amiss to hear M. GRAVIER state, that the English, with whom we may include most of our countrymen, "have a *horror of ptisans.*" We have not ourselves been free from the habit of thinking, which has probably given rise to this remark; and candour requires us to acknowledge our present conviction that we were in error, and have neglected a very useful remedy.

Gum water is too nourishing; and acidulated water gives rise to eructations; nothing being so good as cold water. In cases which he presents, the most prompt and decided relief follows the use of leeches and cold water.—*Annales de la Med. Phys. March.*

15. *Black Vomit.*–Dr. DICKSON, of South Carolina College, has published an essay on this substance. He cites cases in which it has appeared during pregnancy, and in one instance, from fatigue, in a boy. He gives, from his own experience, cases in which black vomiting took place during *pregnancy*, a *catarrhal fever*, *dropsy*, *varioloid*, *enteritis*, an "obscure *abdominal affection*," with severe pain in the whole length of the spine, obstinate constipation, great irritability of the stomach, and prostration of the vital powers; and, finally, in two cases of bilious remittent fever, distant from the city. Of these, the dropsy, the enteritis, the case of constipation and vomiting, and the two bilious fevers, were mortal, and the other patients recovered.

Dr. DICKSON sides with those who consider this substance a peculiar secretion, and not blood, altered by the gastric fluids. To this opinion we ourselves incline; and will take the liberty of adding that the facts collected by Dr. DICKSON go far to demonstrate the identity in nature of the greater part of the disease in all these diversified cases, namely, an inflammation of the mucous membrane of the abdominal canal.—*Phil. Journal, August.*

16. *Local læsions in fever.*—Dr. HEWETT has published (Lond. Med. and Phys. Jour. August) a tabular view of the morbid appearances which presented themselves in *all* the fatal cases of fever received into St. George's Hospital during the year from July 1st, 1826, to July 1st, 1827. A statement of the result may serve to enable us to judge of the relative frequency of morbid affection in the great organs of the body, and of the propriety of considering the greater portion of ordinary fevers as cases of gastro-entero-cerebritis. Minor and unimportant alterations are neglected by Dr. H., as interfering with the general views which he wishes to take of the subject.

Twenty-six cases are given. In *six* of these considerable disease existed in the cephalic, thoracic, and abdominal cavities, at the same time; in *nine* there was considerable disease of the head and abdomen; in *one*, in the head and thorax; (a case of pleurisy coming on from cold, during convalescence;) in *three*, in the thorax and abdomen; in *five*, in the head alone; in *two*, in the thorax alone; in *one*, in the abdomen alone; and, finally, in *one* case, a peritonitis was found, but the subject was not examined farther.

Of the abdominal viscera, Dr. H.'s principal attention was directed to the intestines; in the mucous membrane of which he searched with peculiar care, for that disease of the glands of PEYER and BRUNNER, which we noticed in our Quarterly Summary for July, 1826, as being described by Dr. BRETONNEAU, of Tours, under the name of *dothinentery*. He found this lately unknown affection in no less than *eleven* cases.

Dr. H. conceives that "these follicular ulcers of the small intestines, seen in the above report to have so often occurred, arise spontaneously during the progress of idiopathic fever;" "and when once established," that "they must, at least during their active and irritable state, reciprocally exasperate the symptoms, and become a very effective cause of the prolongation of fever." "Their existence," he also thinks, "when they have lost their irritability, and assumed a tranquil condition, is not incompatible with the subsidence of the fever, and even with some semblance of convalescence." To establish these points, he narrates cases, in which, after a considerable period of apparent amendment, relapses took place, and the patients ultimately died, exhibiting follicular ulcerations after death. "In these and many similar cases, the original fever seems either to subside entirely, or to assume a new character, by becoming merely a secondary fever, symptomatic of the local irritation from the ulcers in the intestines;" similar to the hectic of phthisis, and the infantile remittent fever from local irritation. "It is not meant to be implied that the conversion of a continued into a remittent fever is necessarily connected with this kind of ulceration in the bowels: such conversion is, on the contrary, generally and justly considered as a very favourable omen; but then the progressive amendment is sufficiently evident, which is far otherwise with cases such as have been related above."

This paper is written, with a view of exposing the peculiarities of these ulcers, not from attaching an undue importance to them; but from finding, that, while the attention of the practitioner is attracted by the more alarming symptoms of other læsions, these are making concealed progress, and often complete the work of destruction without even exciting a suspicion of their existence.

17. *Bronchitis fatal by repletion of the air-passages.*—Dr. W. H. BURRELL, of the British 72d regiment, has published an essay on the above disease, with a few cases. His principal object is to prove that bronchitis, in its advanced stage, is more apt to prove fatal by the accumulation of mucus in the ramifications of the air tubes, than by the direct effect of the inflammation. "Contrary to general rule, our attention is to be directed to the removal of effects rather than of causes;" and "the removal, by blood-letting, of the inflammatory tension of the blood-vessels, disposes the exhalant arteries of the mucous membrane to increased secretion, and thus augments the very evil, to the speedy expulsion of which our chief endeavours should be directed." These considerations, coupled with the bad success which he has observed to attend the practice, led him to pronounce blood-letting, in the advanced stage, a remedy fraught with dangerous, if not fatal consequences. He is disposed to depend principally on nauseating doses of tartar emetic, warm inhalations, emetics in full dose, and mercury. He adds his testimony to that of the BROUSSAIS school, to the uselessness or

injurious effects of blisters during the existence of general excitement.—*Edin. Med. and Surgical Journal, July.*

18. *Homœopathia.*—It may seem disrespectful to a new body of medical doctrines to dismiss it in a note; but we have not as yet been sufficiently convinced of the value of homœopathia to determine on devoting a review to it. Notice has been taken, some time since, in most of the American journals, of a mode, said to have been introduced in Germany, of preventing scarlatina, by the use of belladonna, the belladonna producing a scarlet eruption, bearing some resemblance to that of the disease in question. We took this to be an attempt to imitate the preventive action of vaccination in regard to the small-pox; but it now appears that it is part of a system, a body of doctrines, for which has been adopted the above name.

Dr. HAHNEMANN is evidently a physician of learning and experience. He practised in Leipzig, dispensing his remedies himself, to prevent their being known; and was expelled from Leipzig for thus encroaching on the privileges of the apothecaries, and for selling secret medicines. He now resides in the duchy of Anhalt Coethen, situated between Magdeburg and the Saxon frontier; where he carries on a very extensive practice, and is frequently consulted by persons from a great distance. He first broached some of his principles in HUFELAND's Journal, about thirty years ago; and, in 1810, published a systematic work on the new doctrines, entitled, "Organon der Heilkunde," a book which reached a third edition. Between 1811 and 1821, he also published an octavo work, in six volumes, entitled "The Pure Materia Medica," adapted to his doctrines; and this has also been re-published. He commenced in 1822, and he still continues a journal, entitled "Archiev fuer die Homœpathische Heilkunst."

There are three modes of curing diseases, according to Dr. HAHNEMANN; 1. the Allopathic, or that by producing a different morbid action, and transferring the existing one to a new situation; 2. the Homœopathic, of which we are about to treat; and 3. the Antipathic, or Enantiopathic, consisting in opposing the disease by producing its opposite. This last he calls a palliative method; and complains that, when the effect of the remedy has ceased, the disease returns with aggravated violence. It is therefore the worst of all; and it would be better to confine ourselves to the production of metastases, according to the Allopathic plan.

But the real and successful plan, the Homœopathic, consists in giving such remedies as would of themselves produce an analogous disease. The original complaint is thus superseded by an artificial one; and when the effect of the remedy has gone off, the patient is well, at least of those symptoms to which the medicine was applicable. Thus, if a man is taken ill with head-ach, pain in the back, vomiting, and a red flush on the skin, we are to hunt up some narcotic poison, which produces all these symptoms, or the greater part of them, give him the thousandth part of a grain or drop of the article, and leave him. Next morning we are to find him well of all the symptoms which the poison was calculated to aggravate. We use the word poison because a great portion of his remedies are such. Belladonna, hemp, menispermum, cocculus, nux vomica, stramonium, arnica montana, pulsatilla, aconitum, opium, hyoscyamus, bryonia alba, American poison vine, are favourite medicines.

His researches into materia medica appear to be a most faithful and laborious attempt to enumerate *all* the symptoms which may be produced by the most extended list of articles. Their effects are recorded with the most painful, and we might perhaps say, ridiculous minuteness. Nux vomica produces 50 pages of symptoms: and opium 53! Chamomile flowers produce 1481 symptoms; elder flowers, 116; mullein flowers, 175; iron, 228; bark, 691; platinum, 402!!

The *Journal des Progrès* gives a cure of a disease of some severity produced by the *quintillionth part of a drop* of something or other. We will mention two cases, given in the Edinburgh Journal, which the editors of that publication assert to be the *only two cases* which HAHNEMANN has published in his own works, although others may be found in the writings of his disciples.

In case 1. a stout washerwoman had been unable to work for three weeks, suffering from an acute pulsating pain in the cardia, at every movement, particularly when the feet were put to the ground; the pain coming on in the left side whenever a false step was made; on lying down, patient quite easy; unable to sleep after three in the morning; nausea after eating; a collection of fluid in the mouth after eating; eructation, but without odour, after eating; a choleric temperament and covered with sweat during the paroxysms of pain. To this enumeration succeed a discussion and comparison of certain remedies, which lead us to the conclusion, that, of the whole materia medica, that remedy most capable of *producing* such symptoms is bryonia alba; and, as the patient was robust, she might take, without imprudence, one of the heaviest homœopathical doses, namely, *an entire drop* of bryony juice. The result of this severe treatment is not given in the Edinburgh journal, but we are bound to presume that it was a homœopathical cure.

Case 2. was a weak, pale complexioned man, forty-two years of age, an accountant, who had been ill five days. Symptoms, vertigo *in the evening*, with nausea and eructation; vomiting at 2 o'clock in the morning; fœtid and acid eructations; a sensation of the food remaining undigested in the stomach; a sensation of the head being empty and rather confused; the slightest noise being troublesome; the mind remaining tranquil.

Now pulsatilla is the remedy best adapted to produce all these results; not forgetting the vertigo in the evening, and the tranquillity of mind. On account of the patient's weakness, however, it was judged proper to administer a very small dose. *One eight millionth part* of a drop of pulsatilla juice was therefore given to the patient in the evening. On the following day HAHNEMANN asserts that the patient was free from all his complaints; his digestion was quite restored, and intelligence was brought at the end of the week that he continued in good health.

After this introduction, our readers will probably think it a work of supererogation to make any remarks on the proper mode of preparing and preserving medicines for homœopathic use. Quære de hoc! as the lawyers say. Medicinal substances are to be chosen in their natural and unprepared state. HAHNEMANN considers it the best mode of preserving the active principle of plants to mix the expressed juice with an equal quantity of pure spirits. If the plant be powdered, the greatest care should be taken to dry the substances most carefully in the dark; and after powdering, they should be dried a second time, by the water bath. This should be continued till the particles, when stirred, go apart like fine sand; they should be preserved in closely stopped glass bottles, and carefully kept from the direct rays of the sun, and best in the dark.

No more than one medicine at a time, and that in the most simple form, is to be administered in a single case.

We have become so familiarized to wonders, in the present state of medical and other science, that, to use the appropriate expression of a friend, we "are almost afraid to disbelieve any thing:" but we may be permitted, we think, in the present instance, to say that this doctrine is a queer one. If we understand it correctly, one of its effects, if successful, will be to lighten our own labours; for we cannot conceive what possible use there can be in pathological investigations, the study of sympathies, or that of

morbid alterations of structure, when the whole ars medendi shall be reduced to the simple problem:—"*Given, a certain collection of symptoms, to guess out a substance which is capable of producing nearly the same effects, and to give the millionth part of a grain of it.*" We may be too hasty here, also, it seems, in imagining it impossible to borrow a single argument from alleged previous experience in favour of homœopathia. Dr. HAHNEMANN cites, in confirmation of his doctrine, Dr. KENTISH's cures of burns by his spirits of turpentine, that of syphilis by mercury, which, according to MATHIAS and others, is capable of producing the same effects, that of the sweating fever of 1685 by diaphoretics, of frost-bitten parts by rubbing with snow, of burns by holding them to the fire, &c.

The discoverer has here exactly harped upon a string of our own old (personal) doubts and disbeliefs. We, however, refer the whole matter to time and experience, quem "penes arbitrium est," the justice of all medical doctrines.

19. *Contagion question in Yellow Fever.*—The doctrine of non-contagion, which is regulated by degrees in latitude, has at length gained a victory in 48°, 42′, north. At the extraordinary sitting of the Royal Academy of Medicine of Paris, held May 15, 1827, the Academy heard read, according to the writer in the *Archives* for May, an extremely remarkable report, made by M. COUTANCEAU, in behalf of a committee of eighteen members, to whom has been referred a number of documents relative to yellow fever, collected by Dr. CHERVIN, in America and in Spain, together with the following question from the minister of the interior: "Is there ground for the postponing the construction of new lazarettos?"

In 1821, during the epidemic of Barcelona, in Spain, a committee, composed of Messrs. Pariset, Bally, and François, was sent to the spot, for the purpose of observing the disease, its character, its mode of propagation, and the most effectual means of preservation and cure for those exposed to it. The committee reported in favour of importation, contagion, and quarantines, "cordon sanitaire," and all; and this opinion they supported by a number of facts, which they alleged as conclusive evidence of its correctness. On the 3rd of March, 1822, a law was passed, making the most severe arrangements for a non-intercourse with Spain, which inflicted the punishment of death in many cases, instituted a sanitary discipline, and directed the construction of new lazarettos. The "cordon sanitaire," as is well known, became subsequently convinced, that the best method of ensuring the health of the two countries was invading that one where the yellow fever prevailed, and overturning the government thereof.

The report of the committee was vehemently attacked by a number of Spanish physicians; but the honour of striking the most decisive blow was reserved for Dr. CHERVIN, whose talents and amiable qualities gained him so many friends during his sojourning in this country. We are promised, in a future number of the Archives, to be presented with an analysis of the fine report of M. COUTANCEAU, and of the then impending discussion. In the meanwhile, we are told that Dr. CHERVIN has shown, by authenticated documents, (we all remember the extreme formality of those he obtained among us,) that hundreds of alleged facts, contained in the committee's report, "are incorrect and forged, (controuvés,) that the persons put to death (tuées) in the report, are in very good health, and that families on whom the committee had inflicted yellow fever in the most cruel manner, had never seen the disease." We have translated, very closely, the words of the writer in the Archives; who adds "such is the manner in which history is written!"

The conclusions come to in the last report are said to be nearly these, 1. That the documents collected by M. CHERVIN merited the most serious

attention of government; and 2. That they are of a nature to induce the latter to postpone the erection of the sanitary establishments ordained by the law of the 3rd of March, 1822. These conclusions were passed unanimously (we presume by the committee of reference.)

The report was ordered to be printed, notwithstanding the lively opposition of M. PARISET; who assigned, as the reason for the part he took, *the interest of the government.* It appears that M. P. succeeded in prevailing on the council of administration of the academy, to postpone the publication of the report, in order to allow him the privilege of conjoining with it a refutation; and that, finally, the academy was to have a new, and it was hoped conclusive, discussion, on the 5th of June last. It is understood that M. PARISET is favoured by the minister of the interior.

Thus far we have followed the "Archives;" but while the foregoing was in the hands of the compositor, we have received a continuation of the subject in the July number of the "Journal Générale de Médicine." The lateness of this arrival, and the limited space allowed us, will effectually prevent our being able to give an extended analysis of the discussion.

M. ADELON defended the course which the Administrative Council had pursued; and moved, as an act of justice, that they be heard, *previously* to opening the discussion. This was objected to by Baron DESGENETTES. M. ADELON's proposition, however, was carried; and M. PARISET read a long written reply. We have perused the analysis of this reply which is given in the journal; but have not, of course, a complete view of the subject. We will, however, say, from its own character, that it appears to us to be a defence of a few selected points, and to leave other parts of the arguments untouched. For instance, M. P., in direct terms, waives the whole subject of M. CHERVIN's American documents; which, one would think, were of *some* importance. M. P. concludes with an appeal to the experience and practice of England and Spain, who still support quarantines; and with a denunciation of the terrific consequences to be expected from the entrance of this pestilence into France. M. COUTANCEAU moved that M. PARISET's reply be published along with the report of the committee over which he presided.

M. ROCHOUX avowed himself a contagionist, but publicly corrected a part of the reply, in which he had been stated as authority for one of the facts cited in it.

At the next sitting, June 19, 1827, some corrections were made in the minutes, both which were of phrases that seemed to lean towards contagion. A letter from M. AUDOUARD was read, requesting to be heard in defence of some of his own statements which had been contradicted, and in endeavouring to show that both sides were in the right.

A letter was read from M. BOISBERTRAND, an officer of government, informing the Academy that they had misunderstood the question referred to them; which did not regard the postponement of new lazarettos, that being a government affair; and requesting them to confine themselves to the simple discussion of contagion or non-contagion. M. COUTANCEAU then moved, that the report of the committee be preserved entire, with the simple exception of changing a few phrases which would make it a reply to the question as now stated by the minister; which, after a very animated debate was finally carried, and the amended report ordered to be printed for the sitting of the 1st Tuesday in July.

IV. PRACTICE OF MEDICINE, THERAPEUTICS, AND MATERIA MEDICA.

20. *Stramonium in Chronic Rheumatism.*—The extract of the leaves of the stramonium, beginning with a dose of one grain in the twenty-four hours, and gradually increased until vertigo is induced, is recommended by M. DE KIRCKHOFF, in chronic rheumatism. He also makes use of frictions with the tincture of the plant, or a cataplasm of the leaves to the pained parts.

21. *Treatment of the Itch.*—Professor DELPECH, of Montpelier, considers the itch as purely a local or cutaneous disease, which may be promptly cured without danger of internal disorder. He instances the fact of six thousand soldiers suffering under the itch, who were all cured in a few days without any sinister effects resulting, by their washing one another twice daily, at first with soap and water, and subsequently with a solution of an alkaline hydrosulphuret. Dr. DELPECH has, moreover, discovered by comparative trials made in the hospital at Montpelier, that simple olive oil, rubbed over the skin, will as speedily cure those labouring under the disease as the various sulphurous preparations in common use. He found indeed that one hundred soldiers were entirely cured in an average period of seventeen days, by the former mentioned treatment, whereas twenty-three days elapsed before the like number were entirely relieved by the use of the sulphur ointment. Vide Professor DELPECH's memoir, entitled *Traitement de la Gale*, for the outlines of which we are indebted to the April number of *the Archives Générales de Médecine.*

22. *Gastro-enteritis complicated with hepatitis, following the use of a purgative.*—This is the title of a paper of M. VERNHES, reported to the Royal Academy of Medicine at Paris, by M. GERARDIN. The subject was a female twenty-eight years of age, whose pregnancies had always been accompanied by acute pains in the stomach, and frequent vomiting. After a period of four years of, for her, unusual health, she was seized with violent gastric pains, vomiting, and slight febrile paroxysms, Her physicians fearing an intermittent gastro-enteritis, then prevalent in the district, administered in succession an emetic and two purges; but under the influence of this treatment, the patient soon suffered from the most lancinating pains in the right hypochondrium, and a general jaundice, together with an aggravation of all the pre-existing symptoms. Recourse was then had to the reiterated application of leeches over the region of the liver and to the anus, baths and the entire antiphlogistic treatment. In three months a complete cure was accomplished, after which a journey, imprudently undertaken, brought on a relapse, which, though combated rationally, and with at first an appearance of success, left behind it a chronic gastro-hepatic inflammation, which was only cured after a lapse of four years.—*Archiv. Gen.*

23. *Action of Belladonna on the Eye.*—M. SEGALAS, from experiments made on cats, thinks, that belladonna applied to the conjunctiva has two distinct actions, the first manifested on both eyes at the same time, and due to absorption; and the second, which is only exercised on the eye to which the substance was applied, and which would seem to be referrible to a local absorption or imbibition.

M. LISFRANC informs us, that in certain ophthalmias, in which the redness of the eye is of little moment, and yet the sensibility of the organ extreme, he has used with great benefit the extract of belladonna, by means of frictions round the orbit. In a day or two the inflammation completely disappeared, and vision was practicable.—*Ibid.*

24. *Suppression of articulate speech during several months, in consequence of*

a slow disorder of the stomach.—Dr. G. Strambio, who records this case in his new *Giornale Critica de Medicina Analitica*, attributes the loss of speech to a spasmodic irritation of the larynx, the result of sympathy by *consensus* with a chronic gastritis, or an irritation of the gastric nerves. To a similar *consensus*, with chronic gastritis, he refers a *bulimia*, with an intermittent sensation of choking (*globus hystericus*). The same writer relates a case in which a tænia was expelled by the use of the *bark of the root of the wild pomegranate.*

In the *Giornale Critica* for March, 1826, is a memoir by C. Nardi, on the *advantages of cold bathing, and cold affusions in diarrhœa and dysentery.* The practice is not a new one, and we wonder that Dr. Strambio has not stated the prior claims in this respect of his countryman, Giannini.

25. *Doses and effects of Morphia.*—In an inaugural thesis, written by C. N. Van Enspyck Kleynhoff, and published at Munich, we meet with an account of several experiments performed with the alkali and its salts on animals, by Mulder, Numan, and De Fremery. Twelve grains of morphia dissolved in nine drachms of alcohol, were given to a dog by Mulder at three minutes after one o'clock in the afternoon: the animal died on the following day at four o'clock, after a partial revival in the morning from the state of stupor, insensibility, and loss of muscular power, into which it had been thrown on the preceding evening and night. On opening the body, the lungs, and especially the right one, were covered with livid spots: the right ventricle was full of blood; the stomach and intestines were healthy; the brain was in a natural state, without effusion of blood.

To another dog six grains of the acetate of morphia, dissolved in water, were given: paralysis of the hind legs, salivation, somnolency, dilated, but contractile pupils followed. On the third day the animal had entirely recovered.

Six grains of the sulphate of morphia were swallowed by a dog, which recovered from the effects of the drug on the third day.

We shall not repeat here the symptoms produced by the introduction of morphia into the human body. Gumprecht, of Hamburgh, assures us that the acetate of morphia is preferable to the opium in dry, spasmodic and catarrhal cough, or which has an hysterical origin. In diarrhœa the author prefers opium to morphia; but the latter and its salts are, he thinks, more serviceable than opium in cases of violent pains.—*Bulletin des Sciences Med.*

26. *Catarrho-Rheumatic Ophthalmia.*—Under this head we find an interesting paper in the April number of the London Medical and Physical Journal, by Mr. Mackenzie, of Glasgow. In two former communications he described the pure catarrhal seated in the conjunctiva, and then the pure rheumatic ophthalmia located in the sclerotica. In this disease the conjunctiva and sclerotica are attacked simultaneously: the former membrane by blenorrhœal or catarrhal, and the latter by rheumatic inflammation. In reply to some carping objectors to these niceties of distinctions as too German, our author very properly asserts, that "they are natural distinctions, anatomical distinctions, physiological distinctions, practical distinctions, of the greatest importance to all who have eyes to be cured, and to all who intend to cure them." The chief *causes* of the malady are atmospherical extremes and vicissitudes. Among the poor, the disease may in general be traced to cold, to which the patients have been exposed, particularly during the night, from deficient clothing and want of proper shelter. Like other inflammatory and rheumatic affections, it is more prevalent during north-easterly winds. It is much more frequently met with in old persons than in the young and middle aged. We have not room for a detail of the *symptoms*, with which we find Mr. Mackenzie confounding some

of the effects of this variety of ophthalmia, such as ulceration of the cornea, onyx or effusion of pus between the lamellæ of the cornea, and hypopium or effusion of pus into the anterior chamber. The pulse is generally quick and sharp, the tongue white, and mouth ill tasted. The nocturnal pain completely prevents sleep, till about sun-rise. Catarrh sometimes attends, and adds to the febrile symptoms. The treatment is noticed under the following heads: 1. Venesection; 2. Leeches to the temple; 3. Scarification; 4. Calomel and Opium; 5. Opiate Frictions to the forehead and temple, about an hour before the expected attack of the circumorbital pain; 6. Belladonna, so as to keep the pupil dilated; 7. Blisters behind the ear, or to the nape of the neck; 8. Purgatives; 9. Sudorifics, such as Spiritus Mindereri, diluent drinks, the warm pediluvium, and a flannel underdress; 10. Tonics; such as Cinchona and the Mineral Acids, in the chronic stage of the disease; 11. Solution o f Nitrate of Silver, two to four grains in one ounce of distilled water, dropped upon the conjunctiva once a day, relieves the feeling of sand, and speedily removes the other symptoms of conjunctivitis. The application has no effect on the sclerotic part of the disease; 12. Vinum Opii, after the conjunctivitis and the acute sclerotitis have yielded; 13. Collyrium Muriatis Hydrargyri, one grain to eight ounces of water, to be used milk-warm three or four times a day; 14. Unguentum Precipitati Rubri, smeared along the edges of the eye-lids at bed time; 15. in cases of onyx, Mr. M. recommends to leave the matter to itself, and not to evacuate the effused purulent fluid. In venesection from the arm, we may detract, according to circumstances, ten to thirty ounces of blood; and the same quantity the day following, if the symptoms are not greatly relieved. Leeches to the temple are particularly useful when applied soon after venesection. Scarification of the conjunctiva of the eye-lids proves useful in cases of chemosis. The best purgatives are brisk doses of calomel and jalap at the beginning, and then a gentle laxative every morning during the course of the disease.

27. *Peritonitis Cured by Mercurial Frictions.*—M. Velpeau, in the Revue Medicale for January last, recommends, in a puerperal peritonitis, two drachms of mercurial ointment to be rubbed in on the surface of the abdomen, and the remedy to be repeated every two or three hours. After two or three frictions, should the symptoms not be ameliorated, he directs the belly to be anointed with oil, and washed with soap and water, and then the frictions to be renewed. The frictions should be continued some time after marks of salivation have shown themselves. The patient is to be kept in a temperature considerably elevated, and carefully guarded against cold currents of air. The mercurial ointment seemed to save life when free leeching had no beneficial effect.

28. *Gangrenous Erosion in Children.*—This disease, by no means of unfrequent occurrence, has not until lately excited the attention of medical men. It has received various names, such as cancrum oris, gangrenous sore mouth of children, &c., and was noticed by Huxham, as a sequela of measles, and by Willan, as occasionally following scarlatina. Mr. Thompson of Whitehaven, who designates it by the above title, speaks with great confidence of the curative powers of the balsam of Peru, (Med. and Physical Journal, London,) applied to the sores. The disease generally makes its attack, according to Mr. Thompson, in weakly, ill fed, and ill clothed children; and is a consequence of debilitating complaints, occasionally, in those of better condition. "I have observed," says this writer, "that it commences more frequently at the junction of the skin and mucous membrane of one part or other of the lip, and spreads on both sides, with equal rapidity, to parts in the neighbourhood. The action is inflammatory, ending almost immediately in mortification, and this with such quickness that sometimes the

cheek becomes entirely destroyed in a few hours." Dr. CUMMIN has written a good paper on this subject, under the title of *Cancrum Oris*, in the fourth volume of the *Dublin Hospital Reports*. In most instances he thinks that the ulceration begins in the gums, and extends by continuity of surface to the lips and cheek; but sometimes it commences in the lining membrane of the lips or cheek and extends thence to the gums. The period of first dentition is that in which the disease is most liable to make its attack; though it is frequently seen in children between three and seven years of age. It is met with according to Dr. CUMMIN in children circumstanced in the same way as those indicated by Mr. THOMPSON; with the additional remark of the former gentleman that in every instance of the most formidable variety of the disease which he has met with, the constitution had been debilitated by the existence of previous and long subsisting disease. Dr. C. also cites a paper by Dr. MARSHALL HALL, in the 15th vol. of the Edinburgh Medical and Surgical Journal, in which that writer states, "that in all the cases which have come to his knowledge, this affection had been preceded by fever, acute disorder of the digestive organs, typhus, inflammation of the lungs, variola, rubeola or scarlatina." Dr. C. has three varieties of the disease. The first occurring in infants at breast is the mildest and most manageable, and would seem to require little else than the promotion of free alvine evacuations; local applications are seldom necessary. When we are to use them, a little honey and borax, or a mixture of muriatic acid in honey in the proportion of a drachm to the ounce may be advantageously applied by means of a feather or camel's hair brush to the ulcerated surface. In the second variety in which the ulceration is predominant and associated with a torpor of the bowels, or some depraved state of the biliary secretion, Dr. C.'s chief reliance is, after having cleared out the alimentary canal by a brisk cathartic, an alternation of mild mercurials with aperients. The local applications which he has found most useful are the black wash, and a diluted solution of muriatic acid in honey, in the proportion of a drachm to the ounce. As soon as the general health is established, the ulceration will assume a healthy appearance and heal. In the third variety of the disease, or that in which the gangrene is predominant, let us do what we may, Dr. CUMMIN believes that a fatal termination will generally be the consequence. In a few instances, however, in which the disease had made considerable progress, he has known recovery to take place under the administration of the sulphate of quinine and carbonate of ammonia; but in none of these cases had the ulceration extended so far as to involve the outside of the lips or cheek.

We have heard an experienced practitioner (Dr. JOHN W. MOORE) of this city, speak with great satisfaction of the good effects of diluted pyroligneous acid as a wash in ulcerated mouths of children. But, for the most ample information on the subject of this disease, we may refer to the paper of Dr. COATES, in the second volume of this Journal.

29. *Action of Opium.*—M. CHARRET, in a memoir "On the Comparative Action of Opium, and its constituent Principles on the Animal Economy," after giving his view of the composition of this drug to be meconic acid, morphia, (which combines with it,) an extractive matter and narcotin, goes on to speak of its effects on living animals. In man it may act in three ways; 1st. On the encephalon, there determining a sanguineous congestion; 2nd. On the cephalo-rachidian centre, irritating and causing convulsions; 3rd. On the contractile fibre, producing a direct sedative effect. Mr. C. thinks that opium does not act unless absorbed. He considers the watery extract the surest preparation. According to this writer, opium is more efficacious than morphia in intermittent fevers, but the latter is preferable where we fear congestion, or in

phthisis, where the sweats are to be repressed. The effects of narcotin were in Mr. C.'s hands extremely variable, and much resemble those of morphia.

30. *Effects of Green Tea.*—Mr. NEWNHAM, in "Some Observations on the Medicinal and Dietetic properties of Green Tea," mentions its power in his own case of allaying distressing head-ach, throbbing of the carotid arteries, &c. But this exemption from cerebral uneasiness was purchased by many very painful sensations, such as an almost insupportable anxiety about the precordia, palpitation and fluttering of the heart, general tremor and a peculiar distress, which the writer says he found it impossible to define or describe by words. It appeared to him that the first and immediate influence of the beverage was excited on the brain, and that the centre of the vascular system was affected secondarily and as a consequence of such influence. His pupils made experiments on themselves by drinking a strong infusion of the green tea, and experienced similar effects to those indicated above.—*Lon. Med. and Physical Journal, June.*

31. *Ointment of Iodine and Calomel.*—The superior powers, in certain cases, of the united action of mercury and iodine, has led physicians to the use of the preparation composed of these two agents in the form of *proto* and *deuto-iodide of mercury;* occasionally, however, we may prefer the simple mixture of the iodine with the mercury, and it is to meet this wish, that MM. PLANCE and SOUBERAIN indicate the following. ℞. Lard 48 parts, iodine 1 part, mercurius dulcis (calomel) 1½ part. The iodine to be first united with the lard and then the calomel added. In other proportions of these ingredients, there is a decomposition of the calomel by the iodine and either the production of corrosive sublimate and deuto-iodide of mercury, or if the iodine be in excess, the surplus remains mixed with these two salts, or finally, if the calomel be in excess, there results a mixture composed of calomel undecomposed, corrosive sublimate and the *proto-iodide of mercury*, with a small quantity of the *deuto-iodide.*

32. *Dysentery.*—In a succinct account of this disease, as it prevailed at Tours in France, during the autumn of 1826, much stress is laid on the good effects of the long popular practice of giving opium to allay the nausea, colics, tenesmus and frequent dejections, so distressing in dysentery. The medicine was given by the mouth, and with injections. Another remedy, also of long usage in the disease, and eulogized in very strong terms, is the sulphate of magnesia, (Epsom salts) administered daily in doses of from two to six drachms, alternately by the mouth and per anum.

In those cases treated empirically, there were many unpleasant symptoms and effects displayed, such as conjunctivitis going on to chemosis, and more particularly pains and swelling of the larger joints resembling articular fibrous rheumatisms. Local depletion from the eye by scarifications, and from the joints by leeches and cupping, followed in the latter by emollient and topical baths and blisters and regular compression, was the most successful treatment.—*Journ. Gen. de Médecine, &c.*

33. *Alcoholic Extract of Strychnia.*—This medicine was given in pills of half a grain night and morning, in a case of rheumatic paralysis, with entire success, after the lapse of three weeks; and in the same quantity and at the same epochs, it cured nocturnal incontinence of urine in two boys, the one thirteen, the other fourteen years old, who had been subject to this infirmity from birth. The medicine was used for a month.—*Archives Gén.*

34. *Counter stimulant Practice.*—In the *Giornale Critica de Medicina Analitica* for January, edited by Dr. GIOVANNI STRAMBIO of Milan, we find a long essay by the editor on the modus operandi of emetics and purgatives, especially the tartrate of antimony and potassa, or the tartar emetic (*tartaro stibiato.*) Dr. STRAMBIO gives the histories of various affections in which the tartar

emetic was administered in large doses, and adds his own commentaries on the treatment of these cases. The first is of a man with pleurisy, who in the first period of his disease, had been bled six times, (amount not stated) and had eighteen cups applied over the pained side. After his introduction into the hospital on the 5th of May, 1808, his pulse being small, frequent and vibrating, with short and difficult breathing and cough, eighteen grains of tartar emetic dissolved in a pint of rice water were prescribed; and in the evening twenty-four grains were ordered. 6th, Morning. The oppression of breathing is less; thirty-six grains of the tartar emetic were then prescribed. Evening: the oppression is greater; thirty grains given, and a bleeding practised. Blood buffy. During the 7th, 8th and 9th, the difficulty of breathing is less; a hundred and forty-four grains are taken in the day. 10th. The patient is better; ninety-six grains directed. 11th. A diminution of pain, and general feebleness; no vomiting or diarrhœa, or œdema, or palpitation or pain in any part. The dose of the remedy is diminished to seventy-two grains. 12th and 13th. The patient is almost apyretic and has an improved aspect; takes forty-eight grains. On the 15th, the apyrexia is complete; the appetite continues; takes thirty-six grains; two eggs. 16th. Every thing goes on well; takes twenty-four grains. The convalescence was slow but progressive, and the man left the clinical ward on the 28th of May, having taken five hundred and fourteen grains of tartar emetic in ten days.

Other cases of a similar nature are recorded by Dr. Strambio, who comments after his manner on each, and whilst he admits the utility at times of the antimony, is far from being a convert to the Rasorian doctrines of counter-stimulus, or willing to adopt the explanation which it offers of the modus operandi of the medicine. He intimates indeed with tolerable plainness, that the *red spots* and diffused *red tint* of the villous coat of the gastro-intestinal canal, observed in the body of a young man dead with pleurisy on the eighth day of the disease, were to a certain extent produced by the tartar emetic which had been administered. The patient had diarrhœa before his death. Dr. S. admits, however, in his commentary on another case, that it shows conclusively the sedative action of tartar emetic, as was evidenced by the less than natural heat of the skin under its use, and the absence of organic lesions in the thoracic and abdominal cavities after death. Here our author is in opposition to Broussais, who argues for the stimulating and irritating agency of the antimony on the gastro-intestinal mucous surface. The Italian writer thinks that this medicine at first irritates the gastric nerves, then the mucous crypts; and that by augmenting the dose or continuing its use, these nerves are thrown into a state of stupefaction, which is extended to the respiratory nerves; though the tartar emetic continues to irritate the mucous glands, and sometimes even the sanguineous capillaries. Were I, continues Dr. S., to say that the disappearance of the pulmonic phenomena is an immediate effect of the torpified pneumo-gastric nerves, should I perchance be advancing an hypothesis destitute of foundation or reason?

He is even inclined to go still farther, and to suppose that this medicine has an elective action on the pneumo-gastric nerve, or in other words, that this nerve feels a particular *aversion* or *fear* (if the word is allowable) when in contact or relation with the agent. Dr. S. intimates in fine that the pneumo-gastric nerve is not irritated by the emetic tartar, unless the latter be in direct contact with it; and he instances in proof of this position the alleged facts of this salt being introduced by artificial means into the jejunum, ileum and large intestines, in which the filaments of the above nerve do not ramify, without vomiting being produced. Numerous counter facts and experiments might be adduced, we think, to invalidate, if not destroy

this last position of Dr. STRAMBIO. We may perhaps resume the consideration of this subject on a future occasion. We cannot however conclude without protesting against the caption of an article in one of our London Contemporaries, which he has chosen to designate as a "Specimen of Italian practice," conveying thereby a harsh and very unjust censure on Italian Medicine, the more uncalled for in this instance, since the prevailing doctrines and practice in Italy are anti-BRUNONIAN, and in direct opposition to those indicated in the case above alluded to. Because an ignorant physician chooses to overlook all pathological phenomena, and give quinine and stimuli when he ought to have depleted freely, and pursued the antiphlogistic treatment to its full extent, is the national reputation to suffer, the more especially when, as we have already intimated, the predominant national opinions are in direct variance with the individual case selected for criticism? Would not the Editors of the London Medical Repository and Review think our conduct very unfair were we to introduce a notice of the "Medical and Surgical Cases" of Mr. EDWARD SUTLEFF, under the head of "Specimen of English Practice and Medical Logic?"

35. *Metallic Tremor observed as an effect of mercurial treatment.*—This is the title of an essay by Dr. COLSON, a physician at Noyon, and reported on by the French Academy of Medicine. Frequent notices have been taken of the tremors in persons who have worked in mercury; but Dr. COLSON has the credit of being the first to describe that produced by the use of the metal for the cure of disease. He gives six cases in which the metallic tremor was caused by the employment of the liquor of Van Sivieten, and mercurial frictions. The patients were all females of a nervous habit. The best curative means for this malady is first to discontinue the use of the mercury, and then to have recourse to tepid bathing and sudorifics.—*Rev. Med.* (*Mai.*)

36. *On the use of Blood-letting in the cold stage of the paroxysms of Intermittent Fever.*—In our last number we made our readers acquainted with the recommendation and use of the lancet, by Dr. MACKINTOSH, in the cold stage of intermittents. The present heading is the title of a paper by Dr. T. RIDGWAY, inserted in the London Medical and Physical Journal for July last, on the same subject. We cannot acknowledge ourselves as converts to the pathological view, which these gentlemen give of the cold stage, and of the consequent good effects of bleeding in it, whatever experience shall hereafter show regarding the propriety of the practice. We are rather sceptical as to "the shrinking of all the external parts of the body" being a cause or necessary accompaniment of a "concentration of fluid" in the interior, or of an over distended or congested state of the viscera; nor do we believe that the efficacy of bleeding in such a condition of the system depends on a reduction of the volume of the circulating fluids, and the adaptation of their quantity to the capacity of the parts now charged with containing them. The whole hypothesis partakes too much of hydraulics to be physiological, and *a fortiori* pathological. Dr. RIDGWAY, having discovered that bleeding just before the expected accession of the paroxysm rendered it much milder, was in the habit, as military surgeon, of visiting the soldiers labouring under the malady (in Spain) about an hour before the coming on of the fit. On one occasion, however, the paroxysm had anticipated its former period considerably, and when Dr. R. arrived, the cold stage was distinctly formed. "Disappointed at this, and anxious to save the man from a third paroxysm, as violent in all probability as the former, I determined (continues our author) to proceed, regardless of this unexpected obstacle, and took from his arm twelve ounces of blood. To my utter astonishment, the cold, and other stages of the paroxysm glided away imperceptibly; the disease was gone, and after awaiting the next

period of accession, the soldier returned to his duty, and never after made his appearance at the hospital." The opinion ventured on by Dr. RIDGWAY, that when blood-letting has been employed in continued fever before the disease has had time to be fully developed, it has been much more effectual than at a later period, is by us in this country received as an unquestionable fact, substantiated by the most ample experience ever since Dr. RUSH so ably and zealously enforced in his public lectures, the necessity of this practice, not merely in continued fever, but in all diseases in which the use of the lancet is indicated. In our last number we had occasion, when noticing Dr. LEFORT's essay on yellow fever, to give his experience that if he was able to bleed immediately after the accession once, twice, and even three times, four out of five patients recovered, whereas, bleeding practised even on the day after the invasion, presented six times less chance of success.

37. *A New Styptic.*—At a meeting of the members of the Medico-Botanical Society, holden lately, (Sir GEORGE M'GREGOR, the president, in the chair,) Mr. FROST brought before their notice a specimen of a plant, termed by the inhabitants of Peru, *Matica*, and used by them as an external styptic. It appears to be a species of Piper. Its leaves are of a cordate shape, and very tomentose on their under surfaces. They are coarsely pulverised, and in this way externally applied.—*London Med. and Physical Journal.*

38. *Bi-carbonate of Soda in Calculous Disorders.*—Dr. PIERRE, of Bourges, gave to a young girl, tormented by calculi in the bladder, a solution of the bi-carbonate of soda, to the extent of two pints daily: the effect was a cessation of the pain, and the ejection by the urethra of small gravel; and after the lapse of a certain period, the catheter by which the physician had before distinctly felt the calculi, no longer gave any evidence of their presence.—*Nouv. Bibliotheque Med.*

39. *Extract of the Bark of the White Walnut, (Juglans Cinerea).*—The following is a notice of the peculiarities in the action of this indigenous medicine, which concludes a very sensible paper on the epidemics of Missouri, by Dr. M'PHETERS, in the fourth number of the Western Medical and Physical Journal, of Ohio, edited by Drs. DRAKE and WRIGHT. "When reduced to the consistence of a thick honey, and combined with jalap or rhubarb, pulv. ipecacuanha and Castile soap, so as to form pills as already stated, it acts as a mild effectual purgative, without producing sickness, griping, or distress of any kind. Its operation is slow, but certain and efficient, always bringing away morbid secretions, and never producing frequent or watery stools. Its action is peculiar in relieving irritation, exciting secretion, and preserving the strength of the patient. It frequently acts as an anodyne, affording the restless patient a good night's rest, and not operating as a cathartic till morning. In dysentery it allays pain, relieves tenesmus, stops the frequent discharges, and produces ease. In autumnal fevers it effectually brings away morbid secretions, without irritating the viscera, and disposes the parts to a healthy action. In dyspepsia it relieves cardialgia, prevents acrid secretions, and keeps the bowels gently open. Finally, in obstinate constipation, it operates as thoroughly and certainly as calomel, or the drastic purgatives, without occasioning the sickness and irritation which they excite. Besides the above combination, I have made use of it in a variety of others, such as with calomel, ginger and squills, varying the proportions, according to the indications presented by particular cases. Those who have used the various combinations, give it the preference to any anti-bilious or laxative pills they ever used. I have always introduced Castile soap into the different compositions, for the purpose of correcting an acrimony which has sometimes been found in it. I have commonly prepared the extract from the inner bark of the trunk of

a middle aged, healthy tree, in the spring of the year." pp. 210, 11. Although this language may appear to some too eulogistic, yet very many experienced practitioners and sensible heads of families in the south and west, by whom the medicine is freely prescribed, will be found to bear testimony to the general accuracy of Dr. M'Pheters' statement. The late Dr. Benjamin Smith Barton, in his "Collections for an Essay towards a Materia Medica of the United States," mentions his belief of the extract of the juglans cinerea, or butternut-walnut, possessing something of an anodyne property. The dose, according to this writer, is from ten to thirty grains—more may be frequently taken with advantage.

We rejoice to see our western friends of the Medical and Physical, fairly enlisted in the course of periodical medical literature, as we feel confident that great and extensive good will grow out of their regularly sustained exertions, knowing, as we do, the talents and acquirements which they bring with them for the performance of their task.

40. *Intermittent Hiccup.*—An interesting history of this form of disease, is given in the *Nouvelle Bibliotheque Medicale*, by M. Hellis, physician to the Hotel Dieu at Rouen. The subject of the complaint was a young man, who, when seven years of age, experienced at first a feeling of weariness, short of pain, about the last dorsal vertebra; and soon afterwards a similar sensation in the epigastrium, followed by a hiccup. This last would disappear and return at irregular epochs; but its renewal was preceded by the above mentioned sensation, which passed from the back to the epigastrium. After a time, however, this sensation, which the patient compared to the pressure of a light cloud, or a friction of a silken tissue, and which the author designates by the term *aura*, abandoned the epigastrium, and visited other regions of the body; sometimes went upwards to the neck, at other times traversed the chest, abdomen, thighs and legs: but it seemed to be more particularly directed on the upper extremities. The patient could feel it descend along the arm and forearm to the fingers, which were affected by a slight rigidity. On one occasion, and this is the most surprising part of the narrative, having without thought closed his hand, he was not a little surprised to discover that the hiccup ceased immediately, to be renewed so soon as he opened his hand. It was of no avail for him to close his hand when the *aura* or vapour had not descended to it, the hiccup would still continue. But so long as the aura was kept imprisoned in the hand, he enjoyed exemption from the hiccup, he could not, however, on account of the weariness thereby induced, keep his hand in this state of contraction for a longer period than fifteen days, and during this time he was in the practice of folding a handkerchief round his fingers, that he might not yield to any involuntary movements of extension: he was especially careful to adopt this precaution before retiring to bed. Nine years passed away in this manner, after which he came under the care of Dr. Hellis. His appearance and constitution presented nothing remarkable. No disease, eruption, or accident whatever, had preceded the invasion of the malady for the last two years. He is apprized of the coming on of the hiccup by a feeling of tension and swelling in the region of the back: an attentive examination of this part exhibited a round, and somewhat depressed cicatrix on the left, and about an inch from the median line. Its origin could not be ascertained. A new phenomenon was now added to the first. After having kept the left hand flexed for a fortnight, he experienced a sensation, similar in all respects to the first, in the back, whence a new aura escaped, and renewed the hiccup. Wandering like the first, it was, when it reached the right hand, imprisoned, and the hiccup immediately disappeared. When Dr. Hellis requested him to open both hands, he felt two separate *auræ* traversing freely the nervous ramifications, and

seeming to approach and avoid, or cross each other, but never to be joined or confounded in one. The hiccup during the time was extremely violent. A residence in Rouen was found to aggravate his disease, and he returned to his paternal farm. During two years longer he was still tormented with paroxysms; the hiccup was more usually double than single, but the fits were shorter. After the expiration of this time he was freed from the disease, and a year of entire exemption had elapsed when he presented himself to Dr. HELLIS. This gentleman thinks the cure complete, on account of the formation of a nodus on the middle joint of the under finger of the right hand. Similar growths are coming out on the two fingers of the left hand. In changeable weather he feels flying pains in his limbs, and particularly in the deformed joints.

V. SURGERY.

41. *Chlorides of Lime and Soda.*—Under the chemical head of this summary will be seen the methods by which these salts are prepared. They have been for some time past attracting much attention in France, through the recommendation of M. LISFRANC, and lately Mr. ALCOCK has fixed the attention of the English surgeons upon their powers of destroying unpleasant effluvia, and, as it is affirmed, contagious and infectious poisons; but, as the reviewer in the Medico-Chirurgical Review well observes, to destroy an odour is one thing, but to destroy infectious matter is something very different.

From the Revue Medicale for November, 1826, we learn, that in the year 1793, the chloride of lime (the oxymuriate of lime) was employed by M. PERCY, against hospital gangrene, and since that period by various physicians, in numerous external diseases. Mr. ALCOCK details many of these complaints (vide Medico-Chirurgical Review, for April, 1827,) in which the French surgeons, particularly M. LISFRANC, have found this article very useful. In arresting the *gangrenous inflammation*, it is considered peculiarly advantageous, destroying the effluvia, hastening the process of sloughing and of granulation; it is advantageous in *simple and in old ulcers* where a stimulus is required; in some cases of *diseased uterus;* in *burns and scalds*, in their different degrees; in *cancer; corroding tetters; herpes; ulcerations of the mouth; softening of the gums; angina gangrenosa; in severe ptyalism; in simple and syphilitic ulcers of the throat; in affections of the throat, in small pox, in measles, and in scarlatina, &c.*

In the extensive hospital of La Pitié, many of these observations have been confirmed by LISFRANC, especially as regards the great efficacy of the chlorides in burns of the first and second degree, as well as in suppurating wounds, simple ulcers, &c. "But to the immense advantage of hastening cicatrization, the chorides of lime, and of soda, join the remarkable property of rendering the subsequent cicatrix firm, and very often almost as *moveable as the original skin.*" (Rev. Med. Nov.) In those cicatrices obtained by ordinary means, there is chiefly a contraction of the edges of the ulcer with very little new formation; hence, the skin is tense, the cicatrix firmly attached to the subjacent parts and tightly stretched, so that it often gives away under muscular efforts. Hence the reason, why so few indolent and even recent ulcers on the extremities heal in a permanent manner. "By the peculiar stimulation, however, of the chlorides of lime, or of soda, the whole ulcerated surface rapidly secretes that plastic matter (coagulable lymph) which forms the matrix of the cicatrix, and which, under the influ-

ence of this remedy, becomes organized with so much promptitude and energy, that the edges of the ulcer have not time for contraction." The surface of the ulcer remains nearly of its original size, and the new membrane, covering every portion, and quite loosely attached, yields readily to every muscular exertion, and very rarely again ulcerates.

These remedies should not be employed during the activity of the inflammation, nor in irritable ulcers, nor where the edges of the ulcer are indurated. These states are to be previously removed by appropriate measures, especially by repeated *leeching*. So rapid also is the formation of the cicatrix, that the application of the lotions should not be made when the level of the granulations is above, or below, that of the skin, as otherwise the cicatrix will be irregularly elevated or depressed. Three advantages, therefore, result from these chlorides in the mangement of ulcers, according to LISFRANC; the *rapidity* with which the cicatrix is formed, its *solidity*, and its *mobility*. He uses a solution of the chloride of lime in water of three degrees of strength by the chlorometer of GAY-LUSSAC; lint wet with this, being applied to the ulcer and secured by compress and bandage; the whole being kept moist by this fluid, occasionally applied.

In some very old and large ulcers, it was found necessary, in addition to this plan, to keep the limb at rest for two or three months after the ulcer had cicatrized, that the cure might be permanent.

In the Revue Medicale for January, 1827, we have another report from LISFRANC, on the efficacy of the chlorides in chronic fistula, and we there find the following propositions, which are worthy of attention.

1st. The chlorides of soda and lime are stimuli, capable of exciting inflammation, and hence should not be applied too near those organs whose inflammation might be dangerous.

2nd. In general, these chlorides have more power than any other therapeutical agent, in exciting that degree of inflammation necessary to the formation of that plastic matter, which is, with great promptitude, converted into good cicatrices.

3rd. They excite the organic sensibility of those portions of the skin which may be completely denuded of their cellular tissue, and cause it to adhere to the subjacent parts, when other measures have failed; thus avoiding those deformed cicatrices resulting from great loss of substance in parts habitually exposed.

4th. Employed in the treatment of fistulæ, the chlorides, at three degrees, sometimes diminish the suppuration, sometimes arrest it at once. It is in this case, that they are almost always successful, care being taken to regulate the strength of the injection according to circumstances. Some inflammatory action should be excited; but if this be too great, emollients, leeches, &c. should be employed. As the inflammation declines, the surgeon should employ, if the localities permit, pressure on the course of the fistula.

5th. By allowing the chloride of soda to remain in the fistula, this inflammation will be more powerfully excited. In some cases, we have seen the indurations which surround the sinus, discussed by the chlorides, but we always advise that this complication be combated by appropriate measures, before the injection be employed.

Cases are given in illustration. The injections were renewed two or three times a day, and lint, wet with the lotion, was applied to the orifice of the sinus.

42. *Bronchotomy successfully performed for Laryngitis.*—Dr. WILLIAM CULLEN, being consulted on the 14th of March in a case of laryngitis which had commenced in November, and in which the symptoms were now very urgent, resorted immediately to the operation of laryngotomy, to prevent

the consequences of impeded respiration. A small vessel was opened, too small for a ligature, so that "at each inspiration some blood was *sucked in by the wound*, but luckily it did not annoy the patient;" a tube was inserted, and, after a paroxysm of coughing, was tolerated—respiration became quite free, and the other symptoms more favourable. An antiphlogistic course was pursued with advantage, and, by the 28th of March, the tube was removed; no cough or difficulty of breathing remaining. The opening into the larynx gradually closed, and by the 20th of April was perfectly healed. —*Ed. Med. and Surg. Journal for July*, 1827.

43. *Glossitis terminating by Suppuration.*—In the Nouv. Bibliothèque Med. for May, there is a case detailed of original and local inflammation of the tongue in a man, aged 45 years, of good constitution, and free from other disease. On the 12th of February he perceived a small white pustule (bouton) at the inferior part of the tongue, and on the right side; on the 13th, uneasiness increased, mastication and deglutition painful; 14th, disease aggravated—he entered the hospital of St. Anthony; sensation of suffocation. V. S. ad ℥xiv. twenty leeches to neck; 15th, tongue much swollen, and protruding, covered with albuminous effusion, salivation, thirst, pulse full and frequent; V. S. ℥xvj. fifteen leeches to neck, &c. &c. *Evening*, V. S. ℥xij. 16th, tongue less red, more bluish, and smaller; albuminous exudation thicker; voice, &c. &c. improving; salivation continues; 17th, the same; 18th, some ulceration on the left side, and some discharge of a thin white pus from the original pustule; 19th, lanced the tongue, some pus evacuated; 20th, tongue diminished in size. The patient continued improving, and was discharged perfectly well on the 4th of March.

It would appear that this disease is rare, and that suppuration of the tongue is unfrequent; resolution or gangrene being the more frequent results of this spontaneous inflammatory action.

44. *Glossitis cured by Incisions.*—As this disease is sometimes very rapid in its progress, and occasionally fatal from want of information or boldness in the surgeon, we cheerfully condense the following very interesting case from the Ed. Med. and Surgical Journal for July, in which the practice recommended by Boyer, and others, of making deep *longitudinal* incisions into the inflamed organ, was immediately successful. The inflammation appears to have depended on some internal cause.

On the 9th of February, a healthy man, aged 35, consulted Mr. Charles Martin, and informed him, that on the evening of the 7th, he felt an acute pain in the tongue, at first so circumscribed that he could cover the part with his finger, but it rapidly spread, the tongue increased in size, with fever, head-ach, and beating of the lingual arteries, so that this organ protruded from the mouth, separating the jaws for at least half an inch. The symptoms were urgent—V. S. ad ℥xxx: in an hour repeated the operation to the same extent with advantage. In three hours the disease had rapidly increased; respiration difficult, even through the nostrils; through the mouth it was suspended; pulse fluttering; countenance flushed and anxious. Suffocation being thus threatened, a deep incision was made on the most prominent part of the right side of the tongue, which gave issue to blood, and to a puriform matter; two other incisions were then made, one in the middle, and another on the left side; but no purulent fluid was evacuated; the bleeding was promoted by gargling with warm water. The beneficial effects were immediate; in a quarter of an hour the patient could articulate; respiration became free and easy, and his countenance lost its anxiety. He soon recovered.

In imitating this practice, the necessity of making the incisions in a *longitudinal* direction, should be remembered, and also of making them deep,

care being taken to avoid the ranular arteries. Thus the relief is usually great, and gangrene and suffocation often prevented; should they not be immediately effectual, time may be gained, and life even preserved by the operation of Bronchotomy. See the review of Dublin Hospital Reports, page 331 of this number, for Dr. GRAVES' cases of glossitis.

45. *Restoration of a Lost Nose.*—Mr. ROBERT LISTON, of Edinburgh, has successfully performed the Taliacotian operation from the skin of the forehead, on a young man, in whom the whole cartilaginous part of the nose was destroyed by ulceration, consequent upon a blow. Two drawings of the patient, before and after the operation, are given, by which it would seem, that the deformity was almost completely obviated, and the cicatrix on the forehead quite trifling:—"in a short time, the probability is, that no scar will be perceptible."—*Ed. Med. and Surg. Journal for July.*

46. *Axillary Aneurism.*—Dr. ARENDT, of St. Petersburgh, Russia, on the 6th of June, 1826, secured the left subclavian artery above the clavicle, for an axillary aneurism. The ligature came away on the 16th day after the operation; in four weeks the wound was completely closed, and the perfect use of the arm regained.

"Dr. GIBBS was the first surgeon at Petersburgh, who attempted to apply a ligature round the subclavian artery; he has related a successful case in the Transactions of the Medico-Chirurgical Society of London. The other great arteries have likewise been repeatedly tied with success, in Russia."—*London Med. and Phys. Journ. for June*, 1827.

On the 7th of March, 1823, Mr. BRODIE secured the subclavian artery for an axillary aneurism of about the size of a hen's egg, in a man of florid complexion, and of good constitution, aged 30 years. The symptoms were all favourable after the operation, the tumour diminished, the arm warm, &c. *March 8th*—In the morning, well; evening, fever, furred tongue, &c. &c., with much pain in the bowels. *9th;* fever continues, breath fœtid; afternoon, profuse perspirations. *10th;* before 1, A. M. was suddenly seized with severe burning pain, extending down the whole arm to the palm of the hand, lasting three or four minutes, and followed by a severe rigor of twenty minutes' duration, the skin hot and dry, followed by sweating. *Morning;* comfortable, foul tongue, &c. pulse 84, and soft, *wound gangrenous;* the affected limb has been warm the whole time. *11th;* no rigors, bowels uncomfortable, sloughs at wound not extending, no pain. Half past 2, P. M; another rigor, sweating continues since the afternoon of the *9th*. 6, P. M. Pulse stronger; V. S. ad ℥viij. Right elbow much swollen, and painful. *12th;* worse; at 3 o'clock, another rigor; prostration; arm warm as usual; wound not more sloughy, but darker; no ulceration. Died at 2, A. M. March 13th.

"The body after death had the appearance of gangrene, the whole of the right arm, part of the left, and part of both legs, becoming quite livid and soft; and on cutting into them, the muscles and other textures were found to be soft and putrid. The inner surface of the trachea had also a livid colour. The subclavian artery was plugged up, for about half an inch on each side of the ligature, which had begun to ulcerate through the vessel. The inner surface of the aorta was rather more red than natural, and the subclavian vein was of a dark colour; no disease in the heart, nor in any of the larger arteries; nor was any other appearance detected, to which the death could be attributed. It was remarkable, that the gangrenous appearance was less distinct in the arm of which the artery had been tied, than in the other limbs."—*Ibid.*

47. *Hernia through a Rupture of the Rectum.*—In the June No. of the London Medical and Physical Journal, a case is recorded of a rupture of the rectum through its anterior portion, in a female, (caused by vomiting,)

through which not less than two yards of the small intestine with its mesentery were protruded, part being expelled beyond the anus. M. Brodie could not succeed in reducing it through the slit in the rectum, until he made a longitudinal incision, two inches in length, through the linea alba, below the umbilicus, into the cavity of the abdomen. The fingers were introduced through this opening, and the protruded intestine was drawn back from its situation in the rectum, into the cavity of the abdomen. The patient's system did not re-act completely after the operation, and on the succeeding day, April 23, she died. Dissection revealed much peritoneal inflammation, and a transverse opening at the anterior part of the rectum, without any appearance of ulceration.

48. *Ophthalmia treated by the Sulphate of Copper.*—In the Edinburgh Journal of Medical Science, No. 4, Mr. Teale, after having long experienced the good effects of sulphate of copper in chronic ophthalmia, has detailed his success with this remedy in the acute inflammations of the conjunctiva, sclerotica and cornea. "The mode in which it has been employed, consists in slightly sweeping a crystal of that salt three or four times over the everted lower palpebra; the eyelid is then replaced, and the lachrymal secretion soon distributes the sulphate over the whole globe."

Warm water, or some warm milk or oil, may be dropped into the eye, should the pain, which usually subsides in a few minutes, continue. On the following day a decided improvement will be observed; and the operation may be repeated every 2nd and 3d day.—*Medico-Chir. Rev. July.*

49. *Nævi Materni.*—These marks on children often require attention from the surgeon, from a disposition which some of them manifest to enlarge, to bleed, ulcerate, &c. causing deformity, and becoming even dangerous. The vessels often increase so much, as to deserve the name given, by Mr. J. Bell, of aneurism from anastomosis. The proper practice has not been fully determined on, several methods having been proposed and adopted. The July number of the Medico-Chirurgical Review has several observations on this subject. Mr. Wardrop, having noticed that a natural cure sometimes occurs by the process of inflammation and ulceration,* applied a strong solution of corrosive sublimate to a nævus on a child's back; the skin ulcerated rapidly, destroying the substance of the tumour.

In No. 181 of the Lancet are recorded two cases in which the kali purum was applied so as to cause an eschar, which suppurated, and subsequent ulceration destroyed the tumours. Mr. Hodgson of Birmingham has proposed to inoculate the nævus, at several points of its circumference, with the *vaccine virus*, by which, it is said, the nævus is arrested in its progress, or caused to slough. Mr. Earle has thus operated successfully at Bartholomew's Hospital.

The London surgeons have lately employed, with *uniform success*, the ligature, single or double, according to the size of the tumour. Mr. Lawrence ties the ligature very tightly, and usually removes it at the end of 48 hours, to lessen irritation. "An infant four months old was admitted, with subcutaneous nævus on the middle of the dorsal portion of the spine, an inch in diameter. At birth, it was the size of a sixpence; when received, it resembled half a small orange, in size and form. It had a spongy feel, and was reducible by pressure to nearly half its natural size. Mr. Lawrence passed a needle and double ligature through the base of the tumour, and then separating the threads, drew them round, so as to encompass the whole base. The child cried incessantly the remainder of the day, and was convulsed in the night. Next day it was fretful, but took the breast towards evening. It was convulsed the second night. *3d day.* Some

* Medico Chirurg. Trans.

bleeding occurred, but it was suppressed by cold applications. *4th day.* Child very ill. Mr. L. sliced off two-thirds of the tumour, and applied lint, moistened with cold water. *5th day.* The infant much better, and takes the breast. *6th day.* The ligatures removed, and a poultice applied; and on the *7th day*, the tumour sloughed. The ulcer granulated kindly, and the child left the hospital cured."

In this case, Mr. L. allowed the ligatures to remain until the 5th day. Was the severe irritation here excited his inducement for recommending their removal in 48 hours? It will be remembered that this is the principle on which Dr. PHYSICK's improved method of removing scirrhous tonsils and other tumours, is founded. Vide Philadelphia Journal, vol. 1st. It should also be remembered that these nævi may often be advantageously extirpated as recommended by Mr. J. BELL; or isolated, when very large, by incisions, completely encompassing the tumour, as proposed, and successfully executed by Professor GIBSON.

50. *Abscess of the Liver discharging into the Pleura, successfully treated by Paracentesis Thoracis.*—In the London Medical Repository, No. 7, for July, Mr. HUGGINS relates the case of a man, aged 27 years, who, in October, 1825, was seized with severe pain in the region of the liver, difficult and painful respiration, fever, &c.; and was actively treated by V. S. cathartics, &c. &c. On the 6th of November, the patient seemed convalescent. In February, he was again seen, and all the symptoms, indicating effusion into the chest, (which opinion was confirmed by examination with the stethoscope,) paracentesis thoracis was proposed and executed on the 18th of Feb. About seven pints of sero-purulent fluid, with some offensive gas, were discharged, and the wound dressed with adhesive strips, so as to leave an opening for the escape of matter. A free expectoration of matter, and a copious discharge from the orifice, ensued; the patient continued improving, with a discharge of matter, as much as a cupful *per diem*, for at least thirty-six weeks. He, at length, perfectly recovered, the wound healing up; although, by the stethoscope, it would appear that the inferior portion of the right lung was impermeable to the air during respiration.

We have been so often disappointed in our post mortem researches, in not finding the expected consequences of inflammation in the liver, that we must have some doubt whether the seat of the original inflammation was not in the lungs, rather than in the liver. The condition of the lung, after recovery, would confirm this supposition.

51. *Scirrhous Testicle in the Groin.*—In the Heidelberger Chlinishe Annalen, is related the case of a young man, aged 20, in whom the left testicle had not descended, but formed a tumour in the left inguinal region. This, when he was five years old, was mistaken for a hernia, by a surgeon, who advised a truss to be applied, which, with much inconvenience and pain, was worn for twelve months. In June, 1825, pain was excited by a sudden exertion, followed by swelling, induration, &c. In December, 1825, the pain was incessant; and as the disease was in appearance scirrhous, extirpation was resorted to, although, from its upper and outer part, a kind of cord proceeded along the inguinal canal. The canal was slit up, and the cord found to be much hardened, and diseased as far as the internal ring: at which point it was tied and removed with the tumour. The peritoneum was opened and a portion of omentum protruded. After some severe inflammatory symptoms, every thing went on well, the ligature came away from the cord on the 15th day; and on the 30th of January, about five weeks after the operation, the patient left the hospital. In a month he returned, the cicatrix having ulcerated, and a deep, hard tumour being felt, accompanied with great pain in the cicatrix and loins. He rejected all treatment, and soon left the hospital.—*Medico-Chirur. Rev. for July.*

This case is valuable by exhibiting the necessity for accurate diagnosis in tumours about the groin; for it is not improbable, that the hernial truss was the original source of irritation in the above unfortunate case.

52. *A new Variety of Aneurism.*—Professor LALLEMAND of Montpellier, has described in the Repertoire, No. 4, an interesting case of aneurismal disease, of which the following is the summary, which exhibits the great value of the Hunterian operation for aneurisms.

Captain Firmin, after a wandering life, during which he suffered much from disorder of the stomach, at the age of forty-three, was afflicted with wandering pains, which, eventually, fixed themselves in one knee, but were relieved by leeches. This pain in the knee returned, with relief to his gastric disorder; leeches, &c. &c. failed. In three months a pulsation was felt in the joint, the knee increased rapidly in size, and the pain augmented. In March, 1826, he applied to M. LALLEMAND. His age was forty-five, but he had the appearance of being at least sixty years; his complexion was pale and yellowish, and his countenance indicated great sufferings. The right lower extremity seemed wasted, especially below the knee, which last was nearly twice its natural size, surrounded with varicose veins, and the skin tense and shining. The leg was bent on the thigh—all voluntary movements nearly obliterated; and when any motion was communicated to the joint, there was considerable pain;—head of the fibula very prominent—excessive pain extending from the head of this bone, and following the peroneal nerve. When the patient held in his breath, the veins of the knee became doubly dilated, and the skin blue. The same phenomena occurred when the limb was pendant; but when raised above the level of the body, the knee regained its natural colour, and the dilated veins disappeared. The upper extremity of the tibia was about double its proper size; and at the inner side of the ligamentum patellæ, was an oblong flattened tumour, resembling the half of an egg, communicating a distinct sense of pulsation, synchronous with the action of the heart, and accompanied by a feeling of expansion at each stroke. On the external side of the patella, in front of the head of the fibula, there was another tumour prominent beneath the skin, but very much smaller than the first, presenting, however, the same pulsatory movements as its neighbour. The pulsations in both could be completely stopped by pressure on the crural artery." After careful examination, M. LALLEMAND concluded that there was an aneurismal tumour developed in the interior of the tibia, which last had become enlarged and attenuated; and that the ligamentum patellæ, by offering a greater resistance than the parts on each side, had caused the appearance of the two neighbouring tumours.

Ligature on the crural artery at the middle of the thigh, was proposed and made—the artery was unusually thickened. The tumours were lessened in size, and all pulsation ceased. On the eighth day after the operation, the heat of the knee was above that of the other, the movements more free, the tumours diminished—the wound united by the first intention. The swellings continued gradually to diminish, and in two months the patient got out of bed. He eventually perfectly recovered, being freed also from the complaint of the stomach, under which he had so long laboured, by the regimen enjoined by his surgeon.

The above case induced M. BRESCHET to examine the history of bloody tumours involving the bony structure, some interesting cases of which he publishes, and he believes them to be of an aneurismal character, although the cases given are not so decidedly so as the one now given. DUPUYTREN recommended amputation, but BRESCHET seems to be more correct in advising that the artery should first be secured, especially when the complaint is recent. Should this fail, amputation should be performed

We have not room for details. *Vide Medico-Chirurg. Review, for July*, 1827.

53. *Amputation at the Carpo-metacarpal Articulation.*—M. GENSOUL, surgeon in chief at the Hotel Dieu of Lyons, has lately removed the hand at the articulation of the carpus with the metacarpus, preserving the thumb. The disarticulation was easily and promptly executed; some abscesses formed round the thumb, which were readily managed, and a complete cicatrix was formed. The motions of the radius on the carpus, and those of the finger and of the first metacarpal bone, were perfect; but the patient was, some time afterwards, attacked with inflammatory affections of the abdominal and thoracic viscera which caused his death. Journal Generale for *July*.

54. *Treatment of Varicose Veins and Ulcers.*—M. LISFRANC has lately announced, Journal Generale for *July*, that for some years he has preferred the practice of excision of the vein, cutting out a portion of the vessel for two inches or more, to that of the ligature or simple division. He objects to the simple division, because this tube is often in a state of hypertrophy, and enveloped in a lardaceous substance; hence the two orifices of the vein often remain patulous, and the atmospheric air finds ready admission into its canal, and there often excites a dangerous inflammation; but in excision the two extremities remain concealed by the integuments. LISFRANC reports, that since 1821 he has operated on seventy individuals; in all, the ulcers of the limb have cicatrized, and the cicatrix has been permanent. Six only have suffered from phlebitis, which was readily relieved by leeches placed immediately above the point where the inflammation was bounded. It is necessary that the saphena vein should be obliterated, and when the ulcer is on the median line both saphenas must be destroyed. "The operation should be performed on a *sound* part of the vein, for if a diseased portion be exposed, phlebitis is much more common." "Avoid operating too near the trunk of the body, because should this inflammation be excited, it will immediately extend to the abdomen and be with difficulty managed."

These cautions are important, and we would merely add, that the same practice has been revived some time since in this city by Dr. HARTSHORNE, and has been very frequently performed by this experienced surgeon, as well as by Drs. PARRISH, RHEA BARTON and others, and we have not heard that phlebitis has in any case ensued. We would, however, notwithstanding the observations of LISFRANC, still inquire what advantages excision of a portion of the vein can have, over the simple division of the vessel, in the valvular or oblique manner proposed by Mr. BRODIE, and which seems to us the most scientific method of operating.

55. *Spina Bifida cured.*—M. PROBART, of Hawarden, has communicated a case of spina bifida cured by repeated punctures, and discharge of fluid from the tumour. There was a loss of bony substance in the situation of the second lumbar vertebræ, and the lower extremities were completely paralytic. When the child was about three months old, the operations were commenced. After a few puncturings, there came on considerable inflammation in the integuments of the tumour, and the child had some smart convulsive paroxysms: but, by emptying the bowels, and applying leeches to the parts, the inflammation was reduced, and the convulsions ceased. The integuments covering the spina bifida became thickened, and then a plaster and compress were applied with pressure. By these means, the tumour was reduced, and ultimately disappeared, leaving a depression in its place.—*Medico-Chirurgical Review, July, from Lancet. No.* 186.

56. *Silk-worm gut Ligatures.*—In vol. III, p. 404 of this Journal, we noticed that Mr. FIELDING had proposed ligatures of silk-worm gut, for securing

arteries, and that no bad consequences had followed the practice. In the Medico-Chirurgical Review for July, is detailed a case of amputation of the thigh, by Mr. WICKHAM, on a boy aged 9 years; in which "the femoral artery, four others, and one small vein which poured forth blood freely, were secured with silk-worm gut, made ductile by previous maceration in warm water: both ends of the ligatures were cut close to the vessels, and the integuments brought into contact by adhesive plaster from side to side."

On the fifth day, the second dressing was made; no suppuration. On the seventh day, all dressings removed, adhesion had taken place; dressings renewed. In the evening, they were disturbed by the restlessness of the patient, and the lips of the wound partly separated. Four weeks after the operation, the whole was firmly cicatrized; none of the knots of the ligatures had been observed; and as no pain or tenderness was excited by pressure on the extremity of the stump, there was good reason to believe that they had been absorbed. Twelve days afterwards the whole remained well.

57. *Bronchocele cured by a Seton.*—Eliza Gibbs, aged 13 years, was admitted into the Winchester hospital, in the autumn of 1826, by Mr. Lyford, for an enlargement of the thyroid gland, the growth of four or five years. The swelling was as large as an egg; unusually hard and moveable, increasing, and already rendering deglutition painful.

Prescription—Ung. potass. hydriodat. to be rubbed into the swelling night and morning; and the tinct. of iodine to be given internally. These measures were persevered in, until the latter part of February, 1827, with no advantage.

On the 12th of March, Mr. LYFORD passed a seton through the tumour from above, downwards: some erysipelas and an offensive suppuration followed: the former soon disappeared; and within a fortnight, a reduction of the swelling was observed. *April 4th*—Discharge fœtid; some febrile excitement. *12th*—tumour less; discharge abundant and fœtid: patient can swallow without difficulty. *22nd*—swelling daily decreasing; fœtor less. *May 2nd*—Tumour not larger than a small chestnut, tender and hard to the touch; seton continued; patient left the hospital.—*Medico-Chirurg. Rev. July.*

58. *Fatal Hæmorrhage from a Varicose Vein.*—In the Gazette de Santé for May, 1827, M. LEBRUN details the case of a female suffering from large varicose veins on each leg. At the cessation of the menses, these veins augmented; on the right leg, appeared a varix, of the size and form of a hen's egg, being a dilatation of the vena saphena: a smaller varix was also observed on the left leg. From a wound of the tumour on the right leg, half a pint of black fluid blood was lost; an ulcer succeeded, discharging about ℥iv (2 *verres*) of a sero-sanguineous fluid every day. The tumour disappeared, and was succeeded by a phlegmonous erysipelas, which yielded to suitable remedies, no trace of the varix being discoverable: but on the left limb the tumour was unaltered, and was afterwards accidentally ruptured; three to four pounds were lost immediately, before syncope ensued; the hæmorrhage returned as soon as the syncope had ceased; and not being properly managed, was followed by a succession of faintings, by prostration and death.—*Bibliotheque Nouv. May*, 1827.

VI. MIDWIFERY.

59. *On the Management of Collared Cases in Midwifery.*—In the Ed. Med. and Surg. for July, Mr. WM. SMITH of Bideford, has proposed a new method for the management of those cases in which the head is excluded from the vagina with the funis wound round the neck of the fœtus, which

an experience of 40 years has sanctioned as useful and important. Instead of dividing the funis, a difficult and sometimes dangerous attempt, or of endeavouring to slip the fold over the head of the child, which is often impracticable, and often followed, he believes, by permanent injury to the uterus, he proposes, that the accoucheur should first ascertain the *placental* portion of the cord, which is easily learned, because the fœtal portion is invariably tense and unyielding, while the placental portion will easily yield to extension. This being done, he should avail himself of as much of the placental portion as can be obtained, (and there is always sufficient when the collar is single,) gently to extend it to the extreme points of the shoulders. At the next pain, an ellipsis of the funis can be formed with the fingers of both hands, of sufficient size to admit the escape of the shoulders and trunk through it. Thus the delivery is easily completed—"the fundus uteri remains undisturbed, the placenta undetached, and the string unbroken. The slipping of the funis over the shoulders instead of extending it over the head, requires four inches less of extension, and hence diminishes the danger of the operation.

60. *Transfusion after Uterine Hæmorrhage.*—Mr. Douglass Fox, of Derby, mentions in the July No. of the London Med. and Phys. Jour. that he was called in April 1827, to a female greatly exhausted by uterine hæmorrhage; the fœtus, at the sixth month, being expelled, and the placenta retained by an hourglass contraction. The hæmorrhage was arrested by the introduction of the hand into the uterus, and the placenta was removed. "But, notwithstanding the hæmorrhage had now ceased, there was every reason to apprehend the immediate dissolution of the patient from extreme exhaustion, as in this stage of the complaint, she had become totally unable to articulate, to move, or to swallow; the pulse at the wrist was imperceptible, and the general appearance of the patient wore the aspect of death." Dr. Blundell's recommendation of injecting blood into the veins was now adopted. A vein was opened at the bend of the arm, into which was injected blood, from a healthy individual present. The fluid passed with facility, until a common teacup full was injected, which occupied about six minutes. The pulse now became perceptible, and in a few minutes more, the patient could move without difficulty, speak distinctly, and swallow any fluid exhibited. In ten minutes after the operation, the vital energy had so far returned, that there was every reason to anticipate a recovery: while before the transfusion, although every effort had been made to rally and support the powers of the patient, they had been uninterruptedly sinking; and consequently, this was not a resuscitation from a temporary state of fainting, but from that condition, which, in all probability, would speedily prove fatal. In three weeks the patient perfectly recovered.

61. *Resuscitation of Still-born Children.*—In the August, 1827, No. of the London Med. and Phys. Jour. Mr. J. Toogood of London has related some cases in which he has recovered infants apparently dead, after an unusual length of time. In one case no effort to respire was made for thirty-five minutes; in another, forty-five minutes elapsed; in a third, thirty minutes; and in a fourth, the mother's situation was so critical that the child was not attended to, for more than half an hour; it had been wrapped in a cloth and removed to another room. An attempt was immediately made, and in twenty-five minutes, signs of life were manifested; and in fifteen more, the child breathed freely. Mr. T. has always succeeded in resuscitating infants who were living during the birth. He puts no confidence in the warm bath, in friction, nor in pouring stimulants down the throat, but endeavours to imitate natural respiration by placing a napkin over the child's mouth, and inflating its lungs from his own mouth, pressing out the air from the chest afterwards. When a feeble attempt is made by the child

to inspire, the inflation should be made quicker; and afterwards a little aq. ammoniæ or brandy, rubbed over the palm of the hand, and held over the mouth during the inflation of air, will materially assist the recovery.

62. *Laceration of the Perineum.*—In the same Jour. Mr. C. WILLIAMS relates a case of lacerated perineum, in which sutures were employed with success. The whole of the perineum was lacerated, with the exception of the sphincter ani; the fibres of which were distinctly to be seen. Three sutures were employed. On the 9th day, two were removed; and on the 12th the third, when the union was complete.

63. *Abortion.*—At the meeting of the Section of Medicine of the Royal Academy of Medicine on the 15th of February, M. DE KERGARADEC, reported on the memoir of M. COSTA relating to a case of abortion, accidentally occurring in an aneurismal patient, (vide p. 191, of our last number) and suggesting the propriety under certain circumstances of artificially exciting labour. The committee, through Dr. DE KERGARADEC, affirm "that in the present state of the science, there are no circumstances under which it would be proper, or necessary to excite abortion. Nature is most frequently adequate to the favourable completion of such desperate cases, (as occurred in M. COSTA's cases,) while abortion, artificially induced, are ordinarily fatal to mother and child."—*Nouv. Biblio. April.*

We were surprised at this report of the academy, for cases have now multiplied in which artificial abortion has been resorted to, where the pelvis was so deformed that a full grown fœtus could not pass, the mother and infant having survived; the life of the former not really being endangered. (Vide p. 408 of vol. iii. of this Journal.) Whether the practice would be justifiable in patients suffering with aneurism of the heart, aorta, &c. is a question not so readily decided, and to which the report of the committee may be a suitable answer.

VII. CHEMISTRY.

64. *Chemical Nature of the Sweat.*—Dr. ANSELMINO has written a memoir on this subject, from which we extract the following facts:—

The insensible perspiration was found to consist of water, carbonic acid, acetic acid, and ammonia. It was collected by inserting the arm in a long glass cylinder, closed at one end, and attached to the limb at the other, by means of waxed linen, in such a manner as not to touch the cylinder. When the arm was allowed to touch the glass, the perspired matter had the odour of sweat, and contained much muriate of soda. The sweat of persons, labouring under scarlet fever, tetters, and syphilis, was not sensibly different; but Dr. A. observed, that, in puerperal women, the product of the insensible perspiration abounded in acetic acid, from which he explains the sour odour, which they exhale in the puerperal state.

One hundred parts of healthy human sweat, evaporated to dryness, were found to consist of

Matter, insoluble in water or alcohol, (principally calcareous salts,)	2 parts.
Peculiar animal matter of saliva, with sulphates, . .	21
Substance soluble in weak alcohol, (osmazome, and the muriates of soda and lime,)	48
Substance, soluble in rectified alcohol, (osmazome, alkaline acetates, and free acetic acid,)	29
	100

Dr. ANSELMINO was unable to find the lactic acid, announced several years ago by BERZELIUS as the acid of perspiration, and thinks its existence in it very doubtful. On the other hand, he agrees with THENARD in finding the acetic acid, united with a peculiar animal matter, which he supposes to be the substance, designated by BERZELIUS as the lactic acid.

The volatile part of sweat was found to be identical with the insensible perspiration.—*Journal des Progres, &c.* vol. II., 1827.

65. *Gaseous Exhalation from the Skin.*—M. COLLARD DE MARTIGNY has given a short experimental memoir on this subject, in the Nouvelle Bibliothèque Medicale, for March last. In a short historical notice of the labours of his predecessors, he states, that the Count de MILLY was the first to announce, that an aeriform fluid, in considerable quantities, escaped from the cutaneous surface. This experimenter considered it to be the carbonic acid, an opinion which was also held by CRUICKSHANK, JURINE, and ABERNETHY. INGENHOUZ, on the other hand, supported the opinion, that the air secreted by the skin is nitrogen. M. TROUSSET adopted the view of INGENHOUZ, and published some experiments in support of it. Finally, PRIESTLEY and FONTANA raised doubts as to the reality of a gaseous exhalation from the skin, and FOURCROY denied it altogether.

M. COLLARD next cites his own experimental results, which are not in accordance with those of the authors above mentioned. They are as follows:

1. The gaseous exhalation of the skin really exists. Frequently, during the last two years, M. COLLARD has witnessed the secretion of numerous bubbles of air from all parts of the body, when immersed in water. Several of his friends have observed the same fact.

2. This gaseous exhalation is not morbid, but takes place in a state of health.

3. In M. COLLARD, the air emitted through the pores, was, in every instance, a mixture, in variable proportions, of carbonic acid and nitrogen. No oxygen or hydrogen could be detected.

4. It is not a constant exhalation from the skin, but is sometimes entirely wanting. Hence the error of PRIESTLEY, FONTANA, and FOURCROY, who denied the fact altogether. It is generally suspended after prolonged exercise, towards the middle of the day, or immediately after a copious repast. It is sometimes, however, difficult to assign any reason for its absence. Thus M. COLLARD has known it to be absent in warm weather, in the morning upon rising from bed, and after an abstinence of twelve hours, all which circumstances ordinarily favour its production.

5. The quantity of the gaseous exhalation is also very variable. It is always in inverse proportion to the amount of cutaneous absorption. It is generally, but moderately abundant, immediately after a meal, or violent exercise, in cold weather, or during a profuse sweat.

6. The proportion of the two gases present, varies exceedingly. Sometimes the exhalation is almost entirely formed of nitrogen, and at others, of carbonic acid. A full diet of animal food increases the relative amount of the nitrogen, while a diet of white meats or vegetables causes the carbonic acid to predominate.

M. COLLARD thinks the results he has obtained are not to be considered as favouring the ideas of GATTONI, JURINE, ABERNETHY, &c. as to the existence of a *cutaneous respiration;* since, independently of the contact of oxygen with the skin, this membrane is found to exhale a large quantity of carbonic acid.—*Nouvelle Bibliotheque Medicale, Mars,* 1827.

66. *Urinary Gravel.*—M. MAGENDIE reports the case of a man of rank, addicted to the pleasures of the table, who was in the habit of eating, every morning, a plateful of sorrel. After following this usage for more than a year, severe

pains were experienced in the loins and ureters; and shortly after, a calculus was voided, six or seven lines in length, and two in width. Upon analysis, it proved to consist of oxalate of lime, nearly pure. There can be but little doubt, that the oxalic acid contained in the sorrel, determined the formation of this calculus. An effectual remedy was found in a change of diet.

In another case, obseved by M. MAGENDIE, the urine furnished a remarkable saline deposite, mixed with hair. It occurred under two forms; first, as a fine white powder, mixed with a large quantity of small hairs; and, secondly, in white pieces of unequal and irregular form, having little consistency, and crushing between the fingers. The fragments did not separate entirely, but adhered together by means of a multitude of small hairs.

Maceration separated the hairs from both varieties of these hairy gravel, as they have been called. The hairs differed but little from ordinary hair, except in being finer, and of a gray cinder colour. The accompanying matter was phosphate of lime, united to a small quantity of phosphate of magnesia, and uric acid.

This urinary deposite, by reason of its consisting of phosphate of lime, is considered by M. MAGENDIE, as resulting from the excessive use of animal food; and the tendency to form it was readily prevented, by prescribing an almost exclusive regimen of vegetable food and alkalies.—*Lond. Med. and Phys. Journ. May*, 1827, *from Journ of Science.*

67. *Thein, or the Peculiar Principle contained in Tea.*—M. OUDRY infused 1937 grains of souchong tea in about four pints of distilled water, in which 465 grains of common salt had been previously dissolved. The infusion was continued for twenty-four hours, after which it was filtered and evaporated to dryness. The dry residue was, then, treated with alcohol, and the alcoholic solution evaporated to the consistence of a thick sirup. The alcoholic extract was treated with boiling distilled water, and the liquor filtered while yet hot. During its cooling, it became cloudy, and, at the end of twenty-four hours, deposited a reddish-brown aromatic resin, possessing a slight bitter taste.

After having again filtered the liquor, it was treated with an excess of magnesia, and boiled for a few moments. The magnesia produced a precipitate, consisting of the principle in question, which, with the excess of this earth, was separated by a new filtration.

By the action of alcohol on the precipitate, the thein was dissolved, and, by subsequent evaporation of the alcohol, it was obtained in needle-shaped crystals.

The aqueous solution, from which the magnesian precipitate had been separated, was yellow by reflected light, and red by transmitted light. By evaporation, it deposited very handsome prismatic crystals, which were identical with those obtained by means of the alcohol.

Thein, when thrown on live coals, first undergoes fusion, and leaves a charcoal, not very voluminous, and which may be totally incinerated, though with difficulty. It is soluble in from 35 to 40 parts of water at the temperature of 54½ degrees of Fahr. In alcohol, it is soluble in every proportion.

It forms salts, but its capacity of saturation is low. It gives but doubtful indications of alkalinity.

Combined with citric acid, it affords a crystallizable salt, sometimes in silky needles, at other times in elongated prisms. With sulphuric acid, it crystallizes in small needles, having the appearance of amianthus.

Thein is much more soluble in water, than the salifiable bases hitherto known. Hence it is not completely precipitated by magnesia, but remains

partly in solution. M. Oudry has not determined the nature of the acid, with which the thein is, without doubt, naturally combined in the tea.

M. Oudry reserves the question for future determination, whether the medicinal properties of tea reside in the resin, or the principle which he has discovered.—*Nouvelle Bibliotheque Medicale, Mars*, 1827.

68. *Consumption of the Sulphate of Quinia in France.*—MM. Pelletier and Caventou have applied to the French Academy, to be allowed to become applicants for the Monthyon prize, in consideration of the medical improvements, which have grown out of their discovery of quinia, and its sulphate. They state, that, in consequence of their labours, the preparation of the sulphate of quinia has become a new branch of industry in France of the highest interest. To give an idea of the quantity of this sulphate, which is annually consumed, they laid before the academy a statement of the amount manufactured in two laboratories in Paris, one conducted by M. Pelletier, and the other by M. Levaillant. This document embraced the following particulars:

Cinchona bark, treated by M. Pelletier, on his own account, ...	270	quintals.*
Do. by M. Pelletier, in conjunction with M. Delondre, ...	460	
Do. by M. Levaillant, for M. Delondre, .	420	
Do. by M. Levaillant, for himself and various capitalists, ...	437	
	1587	quintals.
This quantity of Cinchona produced, of sulphate of quinia, ...	59,000	ounces.
The other manufactories of France are estimated to furnish	31,000	
Forming a total of	90,000	ounces.

Now, if we assume, that thirty-six grains is about the average quantity taken by each patient who employs this medicine, then the ninety thousand ounces may be supposed to be divided amongst one million, four hundred and forty-four thousand individuals.

MM. P. and C. add, that these details will not appear exaggerated, when it is considered, that the sulphate of quinia is employed over the whole of Europe, that it is exported to America, and that French and English commerce conveys it to the Levant and East Indies.—*Revue Medicale, May*, 1827.

M. Henry, Jun., has written to the French academy, for the purpose of requesting, that his name also may be placed on the list of candidates for the prize, founded by M. de Monthyon for important medical discoveries. He alleges, in support of his claim, that the public is indebted to him for the process, by which the sulphate of quinia is obtained very expeditiously, and in greater proportion and more economically than by the method of MM. Pelletier and Caventou.—*Archives Generales, Mars*, 1827.

The committee of the Royal Academy of Sciences of Paris, have already awarded a premium of ten thousand francs to MM. Pelletier and Caventou, for their discovery of the alkalies of the cinchona barks.

69. *Cantharides.*—M. Farines, apothecary, of Perpignan, has addressed a

* The quintal contains about 100 pounds.

note on this insect to the French Academy of Medicine. According to him, the worm-eaten powder of cantharides is not to be rejected, but only to be regarded as less active. He finds that camphor is not sufficient to prevent the production of the insects which prey upon the cantharides, and recommends for their preservation, the unrectified pyroligneous acid.

M. Robiquet treated a sample of the powder of cantharides, suspected to be worm-eaten, by means of ether, in order to determine its value by extracting the cantharidin. He obtained a green oil, which probably held the cantharidin in solution; but as it is not easy to separate this principle by crystallization, unless it be present in considerable amount, he found it difficult to determine the vesicating value by this method.—*Revue Medicale, Jan.* 1827.

70. *Henry's Magnesia.*—M. Robiquet has remarked, that this magnesia, though soft to the touch, and in very fine powder though compact, is less soluble in acids than the ordinary French calcined magnesia. This difference depends upon the strong calcination to which the former is subjected, whereby it is probably rendered less soluble in the juices of the stomach.—*Revue Médicale, Jan.* 1827.

If we may depend upon the accuracy of the above facts, then the elaborately prepared magnesia of Dr. Henry is less valuable as an antacid than the ordinary calcined magnesia.

71. *Chloride of Soda.*—As this substance ranks with chloride of lime, as a disinfecting agent, and has been lately employed both in France and England, with encouraging success, as a remedy in hospital gangrene, phagedenic, syphilitic, and ill-conditioned ulcers, &c. it may be useful to give the formula of Labarraque for its preparation. The French weights, for greater convenience, are converted into the nearest English weights.

Take of pure carbonate of soda, ...	5½ lbs.
Distilled water, ...	22 pints.

Mix, in a bottle of such capacity, as to be one-fourth empty. Then into a glass balloon bottle, (capacity about two quarts,) with a long neck and large mouth, put the following mixture:

Chloride of Sodium, (common salt,)	1¼ lbs.
Peroxide of manganese, ...	1 lb.

Into the mouth of the balloon bottle, lute two tubes: one large and curved, communicating with a bottle containing a small quantity of water, from which a similar tube must proceed to the bottle containing the carbonate of soda; the other, an S tube, intended to afford the means of adding the sulphuric acid conveniently. The quantity of acid necessary to disengage the chlorine from the above mixture is 1¼ lbs., diluted with about a pint of water.—*Medico-Chirurgical Review, April,* 1827.

The above process merely consists in passing a stream of chlorine through a solution of carbonate of soda, until the latter is saturated. It is, however, incorrect to suppose that a solution of chloride of soda only is formed. It is well known that in this process, part of the chlorine is converted into chloric and muriatic acid, by the oxygen and hydrogen proceeding from decomposed water; and that these two acids, together with the remaining chlorine, combine severally with the alkali, so as to form, at the same time, chlorate, muriate, and chloride of soda. We may, therefore, consider the so called chloride of soda, as in reality a complex saline solution.

The above is the rationale usually given when explaining the nature of the liquid, formed by the action of chlorine on potassa, in the process for obtaining chlorate of potassa, and may be assumed as applicable to the case of soda. Nevertheless, Dr. Granville asserts, in a letter addressed to the Editor of the Medico-Chirurgical Review, and published in the April number of that Journal, that he has recently ascertained by experiment, that

LABARRAQUE's liquid does not contain *chloride of soda;* but is a mixture of 73.53 chloride of sodium, (muriate of soda,) and 26.47 chlorate of soda, in every 100 parts, with an excess of chlorine, equal to twice the bulk of the water employed.

Dr. GRANVILLE goes on to state, that the salts present are not the disinfecting agents; for upon being obtained in a dry state by evaporation, and redissolved in water, the remarkable properties of the liquid are lost. Hence it is evident, that the real disinfecting agent is the chlorine which it holds in solution; and simple water, containing the same proportion of chlorine, would have the same effect, though very inconvenient to the operator, on account of the escape of the gas.

Dr. G. considers LABARRAQUE's liquid as consisting of

1	Proportional, chlorate of soda,	108
5	chloride of sodium,	300

Dr. G. alleges that he has ascertained the *modus operandi* of chlorine on animal matter in a state of putrefaction, and that, during that action, new compounds are formed, which he has analyzed. He also remarks that the most economical process for obtaining the liquid of soda for disinfecting purposes, is to saturate with chlorine a solution of chloride of sodium (common salt). His views on these points will be given in detail in a memoir which he intends shortly to communicate to the Royal Society of London.

72. *Preparations of Opium, proposed by Mr. Carpenter.*—In the Philadelphia Journal of the Medical Sciences for August, 1827, Mr. CARPENTER proposes the following preparations of opium.

Denarcotized acidulous Extract of Opium.—Digest an ounce of coarsely powdered opium in a pound of sulphuric ether (sp. gr. .735) for ten days, occasionally submitting it to a moderate heat in a water bath. Distil off the ether, and add fresh portions, until it ceases to dissolve any thing, which may be known by dropping a little of the ether on a clear pane of glass, when, if the opium be exhausted, no trace will be left by the evaporation of the ether: two or three distillations will prove sufficient for this purpose. Next submit the opium thus treated to the action of rectified spirits, eight ounces; strong acetic acid, one ounce; and water, seven ounces, and digest for seven days. Lastly, filter and evaporate, in a water bath, to the consistence of an extract.

Mr. CARPENTER very correctly considers this extract as an impure acetate of morphia. He states that an ounce of the best Turkey opium, when subjected to the above treatment, yields six drachms of extract. It may be converted into laudanum, by assuming six drachms as equivalent to an ounce of opium.

Denarcotized Acidulous Tincture of Opium.—Digest an ounce of coarsely powdered opium for ten days, in a pint of sulphuric ether, (sp. gr. .735) assisting its action, occasionally, by a moderate heat, and continue the digestion, so long as any thing is dissolved. Dry the portion not acted on by the ether; and digest it for seven days in rectified spirits, eight ounces; strong acetic acid, two ounces; water, six ounces; and filter.

This preparation is proposed by Mr. CARPENTER as a substitute for the black drop, which, from the loose directions given for its preparation, is of very uncertain strength.

The preparations, above mentioned, may be procured in this city from Mr. CHARLES MARSHALL, Druggist, No. 221, Market street.

Mr. CARPENTER criticises Mr. ROBIQUET for recommending to make a thin aqueous extract of opium for the purpose of digesting it in ether, in order to separate the narcotin, instead of acting on the shaved or powdered opium directly. But if Mr. C. examines this subject, he will find that Mr.

ROBIQUET's object was to free the watery extract of opium, a preparation much used in France, from narcotin. Accordingly, the name of this preparation is *Extractum opii, narcotina privatum*, as given by MAGENDIE. It, therefore, appears that ROBIQUET's object in making the preliminary or watery extract, was not to facilitate the action of the ether, but to form a denarcotized opium, free from *feculencies*.

Mr. CARPENTER says,

"It is stated that highly rectified ether is the only menstruum for the solution of narcotin. If this is the fact, I cannot understand how laudanum contains this principle, when its menstruum is nothing stronger than proof spirits, and that nearly saturated with the gummy, resinous, and other soluble matters of opium."

We have not been able to find any authority for the statement, that highly rectified ether is the *only* menstruum for narcotin. It is, indeed, true, that some writers say, that it is scarcely or but slightly soluble in alcohol: but those who give its properties with most precision, state that it is soluble in 24 parts of boiling alcohol. It is stated by Dr. DUNCAN to be soluble in 400 parts of boiling water; and it would seem to be soluble even in cold water, when in connexion with the other ingredients of opium; since the extract of opium, made with cold water, is found to contain a small portion of narcotin. Besides, it may be added, that both SERTUERNER and ROBIQUET employ boiling alcohol as a solvent of narcotin, in their processes for obtaining it in a pure state. Hence, therefore, all that can be correctly asserted respecting ether is, that it furnishes the *best* solvent for narcotin; but as both water and alcohol, under favourable circumstances, are capable of dissolving it, we must not be surprised that laudanum contains this principle in abundance.

73. *New Mode of obtaining Meconic Acid. By Dr. Hare, Professor of Chemistry in the University of Pennsylvania.*—Add a solution of acetate of lead to an aqueous solution of opium. A double decomposition will ensue between the meconate of morphia of the opium, and the acetate, resulting in the formation of meconate of lead, which will precipitate. Subject the precipitate to the action of a stream of sulphuretted hydrogen, whereby the lead will be precipitated, and the meconic acid liberated. The solution of the acid is of an amber colour, and furnishes crystals, by evaporation, of the same hue.—*Philadelphia Journal of the Medical and Physical Sciences, May*, 1827.

MISCELLANEOUS ARTICLES.

We are happy to learn that Samuel Jackson, M. D. has, at the solicitation of Professor Chapman, been appointed Assistant Lecturer on the Institutes of Medicine, in the University of Pennsylvania. The lovers of medical science will rejoice in the prospect of advantages to accrue from a public exercise of the distinguished talents of this gentleman, in a department so long neglected in that Institution. Dr. Chapman will now give his attention wholly to the Practice, and to Clinical Medicine.

The Lectures in the Philadelphia College of Pharmacy will commence early in November.

Dr. George B. Wood, on Chemistry.
Dr. Benjamin Ellis, on Materia Medica and Pharmacy.

Dr. Nathan Smith of this city, has been elected Professor of Surgery in the Medical College at Baltimore.

Our cotemporary, The Philadelphia Journal of the Medical and Physical Sciences, is to appear in a new form in November next. It will be called The American Journal of the Medical Sciences.

John E. Cooke, M. D. of Winchester, Virginia, has been elected Professor of the Theory and Practice of Medicine in Transylvania University. Dr. Cooke has in press a new work on the Practice of Medicine.

Professor Scarpa.—We rejoice to learn that this distinguished Anatomist and Pathological Surgeon yet lives, contrary to the report of some Journalists, and that he is publishing a new work under the title—"De Anatome et Pathologia Ossium Commentarii," with six plates. Vide Ed. Med. and Surg. Jour. for July; containing an extract of a letter to Mr. Wishart, dated Pavia, May 21, 1827.

Andrew Vacca Berlinghieri, born in 1772, at Pisa, in Italy, a distinguished Surgical author and practitioner, died on the 7th of September, 1826.—"He found the surgery of his own country in its infancy, he left it in a most flourishing condition. The writings which he has left, and the beautiful inventions with which he has enriched science, are imperishable monuments which he has himself erected to his own glory."—*Journal des Progres, &c.*

On the first of May, 1827, M. Pariset delivered before the Royal Academy of Medicine, an historical eulogium on the celebrated Pinel. This distinguished physician was born on the 11th of April, 1745, was honoured with the title of Dr. in Medicine in 1773, when twenty-nine years of age. He was the author of a Traité Medico-Philosophique sur l'Aliénation Mentale; of the "Nosographie Philosophique, ou Methode de l'Analyse appliquée à la Médicine;" of "La Médicine Clinique," &c. &c. He was a member of the French Institute, Physician in chief of the Salpétrière, Professor of the First Medical School, and, finally, in the Faculty of Medicine in Paris. In 1823, Pinel had an attack of apoplexy—he however survived until the 26th of October, 1826; the latter portion of his life being spent amidst infirmities and disease.

Mr. Shaw, Surgeon of Middlesex Hospital, London, author of a Manual of Anatomy, of several works on spinal distortions, and of numerous papers on the nerves, and other subjects, all indicating talent and industry, died on the 19th of July last, at the early age of thirty-six years.

M. Cullerier, Surgeon in chief of the Venereal Hospital, honorary member of the Royal Academy of Medicine, and former President of the Society of Medicine, &c., died in Paris, on the 3d of January, 1827, in his 69th year.

Dr. Drake, of Cincinnati, has announced his intention of establishing and superintending an Infirmary for Diseases of the Eye in that city. Dr. D. is misinformed respecting the origin of "*The Pennsylvania Infirmary for Diseases of the Eye and Ear,*" in Philadelphia. This institution owes its foundation to the suggestion of Dr. Gibson; in conformity with which, in in the year 1822, the requisite number of subscribers having appointed a board of Managers, these gentlemen made the following nominations:

Consulting Surgeons.

Dr. Physick, Dr. Gibson.

Attending Surgeons.

Geo. B. Wood, M. D., Isaac Hays, M. D., John Bell, M. D., Robert E. Griffith, M. D.

Dr. Wood having since resigned, Dr. Darrach was elected to supply the vacancy.

At the session of the Royal Institute on the 28th of May, the prizes, founded by M. De Monthyon, were distributed.

One of 10,000 francs was awarded to M. M. Pelletier and Caventou for the discovery of the Sulphate of Quinine.

Another of 10,000 francs to M. Civiale, for having first performed the operation of Lithontrity on the living subject, and for the successful issue of many of his operations.

A medal of 5000 francs, for the second edition of Laennec's work--"*De l'Auscultation Médiate.*"

To M. Le Roy d'Etiolles, one of 2000 francs, for his Exposé des divers procedés pour guerir de la Pierre, &c. (Vide notice in our last number.)

Other medals of the value of 1500 francs each, were granted to M. Henri, for improving the means of preparing the Sulphate of Quinine so as to diminish its commercial value; to M. Bailly, for his treatise on the Brain and its Membranes; to M. Bretonneau, for his treatise on Inflammations of Mucous tissues; to M. Gendrin for his Anatomical History of Inflammations; to M. Ollivier, for his treatise on the Spine and its Diseases; to M. Rostan, for his work on Clinical Medicine, &c.; and finally, a medal of 1000 francs to M. Rochoux, for his Researches on the Yellow Fever.

Towar & Hogan have in press a new work, entitled "The Eclectic Dispensatory, containing a Synopsis of Pharmacy and Materia Medica, both American and Foreign: the Formulæ of the London, Edinburgh and Dublin Colleges, with many of those of the most celebrated Physicians, of this and the last century; and also of the most common Empirical Medicines: with a variety of other knowledge relating immediately to the exhibition and preparation of Medicines, collated from the best authorities."

Dr. C. D. Meigs will publish early in the next summer, a volume of Physiological Essays.

The *Journal De Naples*, of June 19, gives the following details as to the statistics of that town: On Jan. 1, 1826, the population of Naples was 351,754; 167,175 were males, 187,028 females, not including the garrison and foreigners. Since last year the population has increased 2,449. The births in the course of the year were 14,932, of which 7,573 were boys, and 7,416 girls, being on the whole 179 births less than the preceding year. 1,875 children were abandoned, 1,362 of them being Neapolitans, and 513 in the provinces. There were 80 pair of twins--in 24 instances both the

children were males, and in 28 both were females. There was one example of three children at a birth, one being a boy, and the other two girls. The proportion of births to the whole population was as one to 23 3-5ths. The number of deaths was 12,540; 6,671 were males, 5,869 females, or about 34 deaths per day. There were 330 sudden deaths, and 13 suicides. Eleven persons died upwards of 100 years old, 93 were between 80 and 100. The proportion of deaths to the whole population was as 1 to 28¼. The number of marriages in 1826, was 3,210; 443 widowers, and 474 widows married again. The proportion of marriages to the whole population is as 1 to 110 2-5ths, and the births as 1 to 4 7-10ths.

Periodical Literature of France and England. The following particulars, on the periodical literature of France and England, are from the *Revue Encyclopédique.* Those relating to the French press were read in the chamber of Peers at the time of the discussion on the liberty of the Press; those relating to England appeared in the *Revue* for December last, and were furnished by M. De George, a valuable contributor to this excellent work. Both articles appear to us very interesting; and, from their contents, we find the periodical publications of the two countries to be more on a par, as to number, than we should have supposed, there appearing, during the present year, in Paris, 178, and in London 176 periodicals.

Periodicals published in Paris, in	1822	&	1827
On Religious Subjects	2		12
Daily Political Papers	11		12
Political Papers, (published twice a week)	5		5
Advertising Papers, &c. (*affiches*)	2		12
Theatrical Reviews and Announcements	5		9
On Bibliography	4		4
On Trade, Finances, &c.	2		10
On the Law	12		20
On Administration	6		7
Medical	13		22
On Music	8		5
Miscellaneous (on the Arts, Sciences, and Literature)	9		19
On Education	2		6
On Fashion	2		3
On Military Subjects	1		3
On History	2		4
On the Arts and Sciences (exclusively)	16		28
Total	102		178

Periodicals published in London, in Dec. 1826.

On Politics	Daily	12	35
	Three times a Week	5	
	Weekly	18	
Quarterly	Natural Sciences, &c.	5	26
	Religion, &c.	9	
	Literature and Fine Arts	12	
Monthly	Natural Sciences	17	88
	Religion, &c.	44	
	Literature, &c.	27	
Daily	Natural Sciences	7	27
	Religion, &c.	6	
	Literature and Fine Arts	14	
	Total		176

INDEX

TO VOLUME IV.

Page.

Abdominal tumour complicated with Ascites, a Case of, - 178
Abortion, Costa's Case of, - 431
Abscesses after Surgical Operations, - - - - - 176
Abscess in the Liver, Dr. Graves on, - - - - - 329
Absorption, Lippi's Experiments on, - - - - - 163
Acetate of Lead in Cancer, 127
Acid, Sulphuric, in Cure of Intemperance, Dr. Brinckle on, 293
Alcoholic Ext. of Strychnia, - 416
Alexander, Dr. on Nervous headach, - - - - - 290
Alkaline Carbonates pass into Urine, - - - - - 192
Amputation of the Lower Jaw, Cases of, by Dr. Cusack, - 320
Analyses of Vegetables, - 314
Analytical Reviews, - 87, 313
Anatomy, Morbid, Dr. Th. D. Mitchel's Remarks on, - 52
Anatomical Preparations, Method of making in hot climates, - - - - - 169
Anchylosis at the Hip joint in Coyle's Case, Further Remarks on, by J. R. Barton, 310
Aneurism Axillary, Case of, 184, 424
of the Heart in a pregnant Woman, 191
Angina Oedematosa - - 182
Anselmino on the Sweat, - 431
Antagonism of Nerves, - - 164
Aphorisms for Delirium Tremens, - - - - - 325
Ardent Spirits not to be used in Delirium Tremens, - 321
Arsenic cures a Nervous headach, - - - - - 290
Arteria iliaca tied by Dr. Gibson, 179
Mott, 178
Artery, carotid, tied by Becton, 83

Page.

Ascites cured by Vapour of Wine injected into the Abdomen, - 172
occurring in Pregnancy, - - - - 190
Asthma cured by Insufflating the Lungs, - - - 175
Azotized principles abundant in Pancreatic juice, - 152

Balsam Copaivæ given per anum in Gonorrhœa, 173
Extract of, in Gonorrhœa, 176
Bard, Dr. his Case of Extra Uterine Pregnancy, - - 281
Barton, Dr. J. R. Further Remarks on Anchylosis by, 310
Bath, Vapour, Dr. Coxe on, - 20
Becton's Case of Epilepsy, - 83
Editorial Remarks on, 84
Bell, Charles, on the Nerves of the Face, - - - - 168
Belladonna in Intermittent, - 175
Action of, on the eye, - - 412
Bellingeri's Experiments on Nerves, - - - - - 164
Benzoic Acid passes into the Urine, - - - - - 193
Black Stools, - - - 334
Black Vomit, Dr. Dickson on, 406
Bleeding and Bark in Yellow Fever, Lefort on, - - 144
Bleeding in Cold Stage, - 171, 418
Delirium Tremens, 216
Blizard's Case of Extra-Uterine Pregnancy, - - - 278
Bond, Dr. case of Osteo-sarcoma, 305
Phlegmasia Dolens, 258
Bond, Dr. Thomas, his Introductory Clinical Lecture, - 264

Page.

Borax passes into the Urine, - 192
Bostock's Physiology Reviewed, 87
Bouillaud on Inflammation of the Brain Reviewed, - - 106
Brain, Bouillaud on, Reviewed, ib.
French Pathology of the, ib.
Lallemand on, - - ib.
Brera on Verminous Diseases, 155
Brewster, Dr. gives a Case of Mania a Potu, - - 234
Brincklé, Dr. on Cure of Intemperance, - - - - 293
Bronchitis, Dr. Burrel on, - 407
Broncho-Encephalitis, Case of, 177
Bronchotomy in Laryngitis, successful, - - - - - 422
Burrell, Dr. W. H. on Bronchitis, 407

Calculus cured without Lithotomy, Leroy on, Reviewed 148
Cancer cured by Compression, 174
Cantharides, Mr. Robiquet's remarks on, - - - - 434
Carbon. of iron in Neuralgia, 175
Carious Joints, Excision of, 186
Carotid artery tied by Becton, 83
Case of Amputation of the lower Jaw, by Cusack, 321—326
Cancer relieved by baths containing acetate of lead, - - - 177
Curved Spine, by Dr. Harrington - 75
Delirium Tremens, by Dr. Brewster, - 234
by Dr. Neill, - 227
by Dr. Otto, - - 232
Diagnosis effected by use of the Stethoscope, - - 342
Dislocation at the Sacro-iliac Symphysis, by Dr. Harris, - 77
Epilepsy, by Dr. Becton, 83
Extra Uterine Pregnancy, - - 762—285
Glossitis, - 331,423
Nervous head ach, 290
Osteo-Sarcoma, - 305
Phlegmasia dolens, 246,258
Ruptured Urethra, by Dr. Condie, - 259
Twins, by Dr. Taylor, 81

Page.

Cephalo-Spinal fluid discovered by Magendie, - - 163
Cerebral inflammation, Costa's mode of treating, - - 173
Charret on the action of Opium, 415
Cherries render the urine alkaline, - - - - - 194
Chimie Organique, by Gmelin and Virey, reviewed, - 313
Chlorate of potassa passes into the urine, - - - - 192
Chlorides of Lime and Soda in Surgery, - - - 421
Chloride of Iron, remarks on, 435
Cholera of the East, Gravier on, 404
Chronic Rheumatism, Stramonium in, - - - - - 412
Citric acid passes into the urine, 193
Clinical Observations, by Dr. Graves, - - - 329
Coates on Delirium Tremens, 27
concluded, 205
Coccyx luxated, - - 185
Coffin's Translation of Brera, 155
Collared cases in Midwifery 429
Colson, Dr. on Metallic Tremor 418
Compression as a cure for Cancer, - - - - - 174
Condie, Dr. on Dr. Kuhn's practice, - - - - - 235
Ruptured Urethra, 259
Vaccination, 14
Constipation with Diarrhœa, Dr. Parrish on, - - - - 300
Contagion of Yellow fever 410
Counter Stimulation practice, 416
Coutanceau's Report on Contagion noticed, - - 410
Coxe's, Dr. D. Theodore, Biography of Dr. Ewing, - 387
Coxe, Dr. D. Theodore, on Vapour Baths, - - - 20
Coyle's Case, further remarks on, 310
Cubebs given per anum, - 173
Cumin, Dr. on Gangrenous Erosion, - - - - - 415
Currie, Dr. Wm. used Opium in Delirium Tremens, - 235
Curvature of the Spine, Dr. Mitchell on, - - - 58
Cusack, Dr. amputates the lower Jaw, - - - - 320

Davis, Dr. Remarks on his cases of Phlegmasia Dolens, - 249

Page.
Davy, John, on making Anatomical Preparations, - 169
Delirium Tremens, Coates on, 27
Concluded, 205
Speranza's opinion respecting 52
treated by depletion, 171
Delpech's mode of curing Itch, 412
Dickson, Dr. on Black Vomit, 406
Digestion, Experiments of Leuret and Lassaigne on 161
Experiments of Tiedemann and Gmelin on 161
Doctrine of Irritation, reviewed, 350
Dublin Hospital Reports, review of, - - - 319
Duodenum, Rupture of the, 195
Dysentery at Tours, - 416

Elephantiasis, amputation of, 185
Emphysema, case of, in a child, 185
relieved by puncturing the thorax 183
Encephalitis, causes of, - 119
Epistaxis cured by Gum Arabic snuffed up the nose, - 174
Erysipelas, observations of Arnolt on, - - - - 168
Ewing, Dr. Biographical Notice of, 387
Exhumation, Medico-legal report of a case of, - - 195
Extra-Uterine pregnancy, Dr. James' paper on, - - 278
Dr. Otto relates a remarkable case of, - - 285
Eye, action of Belladonna on the, 412

Femur, fracture of the, by Muscular Contraction, - - 182
Ferro-Cyanate of Potassa passes into the urine, - - 192
Fever, local læsions in, remarks on, by Dr. Hewitt, - - 406
Foreign body lodged in the œsophagus, - - - 185
Fox, Mr. Douglass, gives a case of Transfusion, - - 430
Fracture of a Cervical Vertebra, 182
Lumbar Vertebra, ib
Os femoris by Muscular Contraction, ib
French Pathology of the Brain, 106

Page.
Fuller's Medicina Gymnastica reviewed, - - - 127
Fungus Hæmatodes at the Neck of the Bladder, - - 182

Gallic acid passes into the urine, 193
Gastric juice, Bostock's opinion of, - - - - - 165
Gastro Enteritis, Vernhes' case of, - - - - - - 412
Gensoul amputates at the carpus, 428
Gibson, ligature of common iliac, 178
Glossitis, Case of, 331, 333, 423
Gmelin's Virey and Chimie Organique reviewed, - 313
Gmelin, Tiedemann and, on digestion, - - - - - 161
Gonorrhœa treated by Enemata of Cubebs and Balsam Copaiva, 173
Extract of Balsam Copaiva in, - 176
Good, Dr. Mason, his opinion concerning Phlegmasia Dolens, - - - - - 238
Goupil's Exposition of the New Medical Doctrines, reviewed, 350
Graves, Dr. his Clinical Observations, - - - - - 329
Gravier on East Indian Cholera, 404

Hahnemann, Homœopathia, 408
Harrington's case of Curved Spine, - - - - - 75
Harris' case of dislocation at the Sacro-Iliac Symphysis, - 77
Head-ach, Nervous, cured by Arsenic, Dr. Alexander's case of, 290
Hellis describes Intermittent Hiccup, - - - - - 420
Henry's Magnesia, - - - 435
Hernia Strangulated, cured by Leeches, - - - - - 184
Hewit's remarks on local læsions in fever, - - - - 406
Homœopathia, - - - - 408
Hops, decoction of, its use in Delirium Tremens, - 221
Hull, Dr. Observations on his cases of Phlegmasia Dolens, 242
Huston, Dr. R. M. on Phlegmasia Dolens, - - - - - 257
Hydriodate of Potassa employed in a case of Abdominal Tumour, - - - - - 178

Page.

Hydro-sulphate of Potassa passes into the Urine, - - 192

Inflammation, what, - 352
of the Brain, review of Bouillaud on, - 106
Insufflation of the Lungs to cure Asthma, - - - 175
Intemperance cured by Dr. Brinckle, - - - 293
Intermittent Hiccup, - 420
Fever, V. S. in the cold stage of 171
Belladonna successfully employed in 175
Intestinal Canal, Imperfection of, 160
Intestines, Strangulation of the, 184
Iodine and Calomel, ointment of, 416
Iron, Carbonated, in Neuralgia, 175
Irritation, Doctrine of, - 350
Kinds of, - 352
Itch, Delpech's mode of Treating 412

James, Dr. Thomas C. his Observations on Extra-Uterine Pregnancy, - - 275
Joints Anchylosed, Remarks on, 310
Joints, Carious, Excision of, 186

Kidney, Extirpation of, its Effects described by Mayer, 398
Kirckoff's Remarks on the uses of Stramonium, - - 412
Kleynhoff's Observations on the Doses and Effects of Morphia, 413
Knee Joint, Excision of the, 187,189
Kuhn, Dr. Adam, employed Opium in Delirium Tremens, 235

Labour, Case of difficult, 191
Lallemand on a new Variety of Aneurism, 427
the Brain, reviewed, - 106
Language Anomalous, Case of, 400
Laryngitis cured by Bronchotomy, - - - - 422
Laryngotomy, Cases in which it ought to be performed, 180
Lebrun's Case of fatal Hæmorrhage from a Varicose vein, 429

Page.

Lecture, Introductory, by Dr. Thomas Bond, - - 264
Leeches employed in Strangulated Hernia, - - 184
Lefort on the Treatment of Yellow Fever, reviewed, - 144
Leroy on the Cure of Calculus without Lithotomy, - 148
Letter from Dr. Alexander, detailing a Case of Nervous head-ach, 290
Dr. Condie, - 235
Leuret and Lassaigne on Digestion, - - - - - 161
Ligatures of Silk-worm Gut, 428
Lisfranc on Chlorides of Lime and Soda, - 421
Varicose Veins and Ulcers, - 428
Liver, Abscess in the, - 329
Local læsions in Fever, - 406
Loffland, Dr. his Case of Phlegmasia Dolens quoted, - 256

Malcolm, Dr. his Case of Phlegmasia Dolens, - - 256
Malic Acid passes into the Urine, 193
Mahoney, James, his Case, - 336
Mania a Potu, Coates on, 27,205
Case of, from Dr. Brewster, 234
Cases of, from Dr. Neill, - 227
Martin's Case of Glossitis, 423
Martinet's Account of Polarity, 401
Case of Anomalous Language, - 400
Manual of Pathology, reviewed, - 168
Mayer on Division of the Eighth Pair of Nerves, 399
Extirpation of the Kidneys, - 398
Medical Doctrines of the New School, - - - 350
Medical Schools, Discourse on the Institution of, - 262
Medicina Gymnastica reviewed, 127
Medico-legal Report of an Exhumation, - - - 195
Membrana Caduca, - 160
Mercurial Frictions, Velpeau on, 414
Mercurial Vapour produces speedy Salivation, - 172

Page.
Metallic Tremor, Dr. Colson on, 184
Mitchell, Dr. J. K. on Curved Spine, - - 58
Dr. T. D. on Morbid Anatomy, - 52
Morbid Anatomy, Dr. Mitchell on - - - - - 52
Morgan, Dr. his Discourse, &c. 262
Morphia, Kleynhoff's account of the Doses of, - - 413
Mott's Ligature of the common Iliac Artery, - - 178
Muciparous Glands, - 397
Mummy, Passalacqua's, - 397
Muscular Action, - 401
M'Gonnigal's Case, - 259
M'Intosh on V. S. in the Cold Stage, - - - - 171
M'Kenzie, Dr. on Ophthalmia, 413
M'Pheters on Juglans Cinerea, 419
M'Vicker's Case of Glossitis, 331

Nævus Maternus, Baldy's Case of, - 399
how cured, 425
Neill, Dr. H. his Cases of Mania a Potu, - - - - - 227
Nerves of Sense, and of Motion, Cases showing their difference, 164, 397
of the Face, Pathology of, 168
Nervous Head-ach, Case of, 290
Nervous Irritation, Doctrine of, 356
Neuralgia, Carbonate of Iron used in, - - - - - 175
Newnham on the Effects of Green Tea, - - - - 416
Nitrate of Potassa passes into the Urine, - - - - - 192

Œsophagus, foreign body lodged in the, - - - - - 185
Ophthalmia treated by Sulphate of Copper, - - - - 425
Opium, Charret on the Action of, - - 415
in Delirium Tremens, - 215
Os Sacrum, fractured, - 185
Otto, Dr. John C. his Case of Extra-Uterine Pregnancy, - - - - 285
his Case of Delirium Tremens, - - - - 232
Oxygen absorbed through the Septa of the Air Cells of the Lungs, - - - - - 161

Painter's Colic, Tobacco Externally applied in, - - 171
Pancreatic Juice, Chemical Properties of, - - - 162
Paracentesis Thoracis, 183–5, 426
Paralysis of the Insane, - 167
Parrish, Dr. Joseph, on Constipation, with Diarrhœa, - 300
Passalacqua's Mummy, - 397
Passmore, Mary, her Case, - 324
Perineum, Laceration of the, 431
Peritonitis cured by Mercurial Frictions, - - - - 414
Phlegmasia Dolens, Dr. Huston on, - - - - - - 237
Physiology, Bostock's, - 87
Physiological Medicine, - 166
Pierre, Dr. on Bi-Carbonate of Soda, - - - - - 419
Placenta, Cases of the Retention of the, - - - 191
Vascular Nature of the, - - - - 160
Plance and Souberain on the Ointment of Iodine and Calomel, - - - - - 416
Pleurisy after Surgical Operations, - - - - - 176
Polarity, - - - - - 401
Potassa in Human Saliva, - 162
Pregnancy, Abdominal, - - 160
after Amputation of the neck of the Womb, - 190
Extra-Uterine Cases of, - 160, 285
Interstitial, - 160
Dr. James' Remarks on, - - 275
Dr. Otto's do. 285
Pregnancy with Aneurism of the heart, - - - - - 191
Pregnancy with Ascites, - 190
Probart's Case of Spina Bifida, 428

Quack Medicines, Circular of the Medical Society of Philadelphia, concerning, - - 202
Quain's Translation of Martinet, 168

Remarks on Phlegmasia Dolens, by Dr. Huston, - - 237

	Page.
Remittent Broncho-Encephalitis,	177
Retrospective Review,	127, 262
Re-union of Tendons, Experiments on,	183
Rheumatism of the Temporal Muscles,	330
Ridgway, Dr. T. bleeds in the Cold Stage,	418
Rupture of the Duodenum,	195
Rectum,	425
Urethra,	259
Rush on the Human Voice,	157
Sal-ammoniac, Medical uses of,	174
Saliva, action of, in Digestion,	162
Salivation cured by Calomel,	174
speedily produced,	172
Savine, in excessive Uterine discharges,	174
Segalas on the Action of Belladonna in the Eye,	412
Seton in Bronchocele,	429
successful in an un-united fracture,	190
Silica passes into the Urine,	193
Skin, Cryptæ of the,	398
Gaseous Exhalation from,	432
Small Pox and Yaws communicated by the same inoculation,	170
Smith on Collared Cases,	429
Souberain and Plance on Iodine and Calomel Ointment,	416
Speculum of Bombolzini,	184
Speranza's Mode of Treating Delirium Tremens,	171
Spinal Marrow, Bellingeri's Experiments on,	164
Fluid, Magendie on,	163
Spine, Curvatures of, Dr. Mitchell on,	58
Spleen, Function of the,	162
Still-born Children, Toogood on	430
Strambio on Counter Stimulation,	416
Sub-inflammation,	354
Sulphate of Quinia, Consumption of,	434
Sulphuric Acid in Intemperance,	293
Sutton's Practice in Delirium Tremens,	210
Taliacotian Operation by Liston,	424
Tartaric Acid passes into the Urine,	193
Taste, Vernière on the sense of,	400
Taylor, Dr. his Case of Twins,	81
Tendons, Experiments on the re-union of,	183
Testicle, Scirrhous Case of,	426
Tetanus cured by Tobacco Injections,	184
Thein, Mr. Oudry's Experiments on,	433
Ticknor on Yellow Fever,	1
Tiedemann and Gmelin on Digestion,	161
Tobacco externally applied in Painter's Colic,	171
Tobacco Injections in Tetanus,	184
Toogood on Resuscitation of Still-born Children,	430
Tracheotomy,	180,181
Transfusion, a Case of,	430
Tremor, Metallic, Colson's Remarks on,	418
Trye, Charles Brandon, on Phlegmasia Dolens,	242
Ulcer in the Throat,	176
Un-united Fracture of the Tibia,	190
Urethra, Case of Ruptured, by Condie,	259
Urine, Incontinence of,	184
Observations on, by Wœhler,	192
Urinary Gravel, Magendie on	432
Uterus, Excessive discharges from the, cured by Savine,	184
Vaccination, Condie on,	14
Vapour Bath, Dr. Coxe on,	20
of Wine injected into the abdomen in dropsy,	172
Varix, Fatal Hæmorrhage from,	429
Vegetable Alkaline Salts render Urine Alkaline,	194
Vegetables analysed,	314
Velpeau on Peritonitis,	414
Verminous Diseases, Brera on,	182
Vertebræ Fractured,	182
Voice, Rush on the,	157

	Page.
White, Charles, on Phlegmasia Dolens, - - -	240
Wine, Vapour of, in Dropsy,	172
Yellow Fever at Thompson's Island, Dr. Ticknor's account of, - - - - -	1
Yaws and Small Pox by same inoculation, - - -	170

ERRATA.

Page 310, for Article VII, read Article X. Page 311, for Article VIII, read Article XI. Page 319, for Article IX, read Article XII.